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Jas. Hedges, 170⁰ 177⁰

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T R E A T I S E

ON

THE DISEASES OF CHILDREN.

CONTAINING

Every disorder of importance falling under the more immediate province of

THE PHYSICIANS

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Jas: Heagis January 5th

T R E A T I S E

O N

THE DISEASES OF CHILDREN,

WITH GENERAL DIRECTIONS

F O R

THE MANAGEMENT OF INFANTS

F R O M

THE BIRTH.

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Physicians, in London,

And Physician to the British Lying-in Hospital.

T W O V O L U M E S I N O N E .

A NEW EDITION, REVISED AND ENLARGED.

Ornari Res ipsa negat, contenta doceri. MANILL.

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M D C C X C I I I .

P R E F A C E.

THE quick sale of the first impression of his Treatise on the Diseases of Children, has encouraged the author to take some pains in correcting and enlarging this second edition. He has at the same time endeavoured to avoid all unnecessary details, and useless distinctions, as well as extending it to subjects foreign from the immediate design. Should the reader apprehend any little exceptions in this respect, he will readily perceive the inducement; and although the accuracy of system should really be violated, it is presumed, it has only given way to motives of humanity and usefulness.

Perfectly

Perfectly sensible, however, of numerous defects, the writer relies again upon the indulgence of the Public, though he hopes this edition will be found somewhat more compleat, and more worthy of a continuance of that favourable reception wherewith the former was so generally honoured. Particular acknowledgements, indeed, are due for the approbation of the faculty; and the like candor, it is hoped, will now excuse any alterations that have been intended to render this edition more easy and familiar to common readers. For the sake of public utility, the writer has carefully avoided all technical terms, or has so explained them, and so enlarged on the nature of diseases, and the doses of medicines, that parents, and others not versed in the practice of physic, may find all common directions sufficiently explicit: whenever they appear otherwise, readers of that description should conclude, that the case is too difficult for their management, and that probably the best guide might mislead them.

The prolixity of other parts may be equally disagreeable to professional men.—For the style in general, indeed, the author pretends to have but little to offer. Had he more leisure, possibly the faults might have been fewer; and perhaps, the necessity of clearly and intelligibly expressing what is to be said, may, in this instance, be pleaded with those who expect conciseness and accuracy; which every writer should aim at. It may therefore be observed, that some consentaneous diseases have been longer dwelt upon, and their remedies oftener hinted, than might be necessary for many readers. To such, however, as are themselves obliged to superintend the health of their children, and to those who derive a happiness from contributing to that of their offspring, there will not be much apology necessary, either for entering so fully into the **LITTLE** matters that compose the **SECOND** part of the work, or for enlarging elsewhere on many circumstances that may appear trifling when separately considered. It was, indeed, very much with a view to their use and profit, that
the

the work was originally undertaken ;
and to their notice and protection it is
again submitted, in its improved state,
with all Deference and Respect.

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T R E A T I S E, &c.

THE following pages being conceived to contain a pretty full account of the diseases incident to childhood, and some of them scarcely known to preceding writers, may possibly throw some additional light on this important subject. They are, in this hope, respectfully offered to the notice of such practitioners in physic, as may not have made the complaints of children their particular study. The motives which have induced the writer to extend his plan to another class of readers, it is presumed, may justify such an attempt. He has, indeed, long lamented the very improper method in which the disorders of infants are treated by those who design them the greatest kindness, but whose mistaken opinions too often counteract their benevolent intentions. The laudable affection of the fondest mother frequently becomes a source of manifold injury to her tender offspring: And this is not only the case among the lower class of people,

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ple, or in situations where medical assistance is procured with difficulty, but even in the metropolis itself, and in the higher ranks of the community, where many prejudices very hurtful to the ease and health of children still prevail.

It is intelligent Parents therefore, as well as the medical world, to whose notice this work is addressed ; and it is hoped, in the estimation of both, no formal apology can be necessary for taking up a subject, that has long called for a thorough investigation.—For the manner in which it has been executed, the author, indeed, again solicits the candor of the public. The most respectable authorities, however, have been consulted, a proper attention been paid to facts, and his best endeavours exerted to obviate the effects of that peculiar veil * which is said to obscure infantile disorders. A practical arrangement of them has been studied, and regard had to their respective causes and symptoms, tending to elucidate their nature,

* There is nothing to which this peculiar obscurity may be referred, but the incapacity of infants to describe their own feelings.—There are, nevertheless, other sources of information, less fallacious sometimes than the more literal descriptions of adults, which in nervous complaints particularly, would tend to perplex the ablest physician if he should always be led by them ; and the like discrimination will serve him equally well in the treatment of infants.

nature, and render their treatment more obvious than has been generally imagined.

To their immediate Diseases, is added an attention to some of the principal Accidents and little Injuries to which infancy and childhood are peculiarly liable; which though not necessary, indeed, for some readers, it is presumed will have their use, and may, possibly, prove no small satisfaction to others. And here it may not be improper to observe, that whatever merit former publications may possess, it may, nevertheless, with great propriety be remarked, that they either make a part of some large systematic work, the bulk of which must be foreign from the intentions of a tract of this kind, or else they are far too concise, and have omitted many complaints of too much importance to be overlooked.

It has been generally lamented by writers on these diseases, that this branch of medicine has remained too much uncultivated. And, indeed, till of later years, little more has been attempted than getting rid of the wild prejudices and anile prescriptions of the old writers, which had too often served only to obscure the true nature of children's diseases. Another, and a very principal cause of so strange a neglect, has arisen from an idea some people have entertained, that, as medical people can have but a very imperfect knowledge of the complaints of infants,

4 *Diseases of Infants much Neglected.*

fants, from the inability of children to give any account of them, it is safer to intrust the management of them to old women and nurses ; who, at least, are not likely to do mischief by violent remedies, though they may sometimes make use of improper and inadequate ones.

How fatal such a mistake must be, is surely sufficiently obvious ; since the destruction of infants is eventually the destruction of adults, of population, wealth, and every thing that can prove useful to society, or add to the strength and grandeur of a kingdom. It may, moreover, be observed, that where mismanagement at this period does not actually destroy the life, it often very essentially impairs the health ; the foundation of a future good or bad constitution being frequently laid in a state of infancy.

It is true, indeed, some laudable attempts have been made of late years to rescue this important trust from being indiscriminately committed to such dangerous hands ; but it is still to be lamented, that even in this liberal age, such attempts have not been attended with all the success they have deserved. It cannot therefore be improper, that something farther should be advanced on the subject, in the hope of silencing the weak objections hitherto made against procuring the best advice as early as possible.

And

And this is the more necessary, because those who have the greatest interest in the subject, the most authority on the occasion, and the sincerest affection for their offspring, have frequently the greatest objections to medical assistance, till it is, sometimes, too late to employ it with effect.—I may, indeed, be very inadequate to the task of obviating such prejudices, but I shall state an argument or two that has always appeared to me of great weight.

A principal objection, taken from the consideration of the incapacity of infants to describe their complaints, has been slightly noticed already, and has been more fully discussed in a treatise written about twenty years since, by Dr. Armstrong.* It is aptly remarked by this writer, that the same difficulty occurs in a variety of the most dangerous complaints of adults at every period of life, which confessedly require the greatest assistance; such are attacks of phrenzy,

A 3

delirium,

* This edition did not contain more than a dozen diseases; being confined to the hooping-cough, scrofula, teething, and the disorders of the first-passages. In the year 1783, Dr. Armstrong published a second edition considerably enlarged. It so happened, that I had not seen it when the first edition of the present work appeared, or I should certainly have taken due notice of it, in regard to several disorders, mentioned in the Doctor's latter edition; to which therefore I shall now attend, as occasion shall offer.

6 *Arguments against this Neglect.*

delirium, and some kinds of convulsions : to which may be added, all the disorders of idiots and lunatics. But these have been successfully treated in every age, not excepting even lunacy itself, and the melancholy subject happily restored to society, his family, and himself.

It has likewise been observed, if infants for the reasons abovementioned are to be excluded the benefit of a physician's advice, it is difficult to say at what age children may safely be intrusted to his care ; since at the age of five or six years, they would frequently mislead the enquirer, who should trust to their own account of their complaints. Their ideas of things are too indistinct to afford us sufficient information, and they accordingly often call sickness at the stomach, pain, and pain, sickness ; they will frequently make no reply to general questions, and when they are asked more particularly whether they have any pain in one or another part of the body, they almost certainly answer in the affirmative ; though it afterwards frequently turns out they were mistaken.

To this idea I will venture to add, that although infants can give no account of their complaints in the manner we receive information from adults, their diseases are all plainly and sufficiently marked by the countenance, the age, the manifest symptoms,

toms, and the faithful account given by the parent, or an intelligent nurse. This I am so confident of, that I never feel more at my ease, in prescribing for any disorders than those of infants, and never succeed with more uniformity, or more agreeable to the opinion I may have adopted of the seat and nature of the disease. Every distemper may be said, in some sense, to have a language of its own, and it is the business of the physician to be acquainted with it ; nor do those of children speak less intelligibly.*—Limited as is human knowledge in every department, there are yet certain principles and great outlines, as well in physic as in other sciences, with which men of experience are acquainted, that will generally lead them safely between the dangerous extremes of doing too little, or too much ; and will carry them successfully, where persons who want those advantages cannot venture to follow them.—Let me ask then ; is it Education, is it

* In neither of these sentiments do I stand alone ; Harris, of whose work Sydenham is thought to have spoken so highly, has said the same things—“*Incertæ verò diagnoseos (quæ multum obtinuit) quærela non tam a symptomatum defectu, quam a præpostérâ ac ineptâ medendi ratione ortum suum duxisse videtur.*” (page 8.) And at page 3.—“*Etenim asserere non verebor morbos illius ætatis generè paucissimos esse, et gradu tantummodò differe ; imo curationem puerorum multò tutiorem ac faciliorem, quam virorum ac mulierum.*” *De Morb. Infant.*

it Observation and long Experience, that can qualify a person for the superintendance of infants, or the treatment of their complaints? Surely all these fall eminently to the share of regular practitioners, to the utter exclusion of nurses and empirics.*

Having briefly stated this matter, as I hope, with impartiality, and given it the attention its importance demands, I shall next observe, that, as the complaints of infants are more obvious than it has been generally supposed, so their number is comparatively small, their cause uniform, † and the treatment of most of them, simple and certain. ‡

For

* Neque potest scire quomodo morbos curare conveniat, qui unde hi sint ignoret—Pertinet ad rem omnium proprietates nosse.—CELSUS.

† It may perhaps be objected to this idea, that their various diseases cannot all originate from one and the *same* cause; nor is it my intention to assert it, though it is, indeed, true, in regard to a great number of them. It is to be remarked likewise, that it is the complaints of *early infancy* that are here particularly spoken of; though it is nevertheless very evident, that there is a greater *uniformity* also in the *causes* of several disorders even of older children, than there is in those of adults, which have very often various, and dissimilar remote causes, at different times, and in different habits: E. G. *obstructed catamenia, ascites, &c.*

‡ Facillimè inquam in morbos dilabuntur infantes, et nisi aut seriùs aut imperitiùs tractentur, facillimè in sanitatem restituntur.—HARRIS de Morbis acutis Infantum.

For the proof of this, as well as in order to establish a rational practice, I shall first consider the Causes and Diagnostics, or specific nature of their complaints, before I attempt to enter upon their Cure.

And here I shall not attend to the various remote causes, but shall confine myself to a practical consideration of the subject, and briefly point out their obvious occasions and symptoms. And on this account, I shall not take notice of the various changes which nature herself induces during the growth of the infant, as it passes from one stage of life to another ; which is, doubtless, a remote cause of some of their complaints.

A principal CAUSE, mentioned by ancient and modern writers, is the great moisture and laxity of infants ; which is necessary, however, in order to the extension of parts, and the rapid growth of young children. This laxity arises from the vast glandular secretion, their glands in general being much larger in proportion, than those of adults. I might instance in the thymus gland, and particularly in the pancreas and liver. But besides these, there are innumerable glands situate within the mouth, in the gullet, stomach and bowels, which are continually pouring out their contents into the first-passages. This is, doubtless, a wise provision of nature, and I cannot, therefore, think with Dr. Armstrong, that the gastric, or stomach

stomach juice, renders the chyle less fit for absorption ; but, as we do not strictly follow her dictates in the management of children, as to their food, manner of clothing, sleeping, &c. this abundance of slimy matter may often overload the stomach and bowels, the constant seat of the first complaints in the infant state.* The quality of the milk, or other food with which infants are nourished, may be reckoned a second cause. A third arises from the delicacy of their muscular fibres, and the great irritability of the nervous system. In addition to these general causes may be reckoned the want of exercise, which at a more advanced age, happily for us, we are obliged to make use of, and which art, in general, does not duly supply in regard to children.†

Hence arise acidities in the first-passages,
a con-

* Non quod ætas per se sit causa illius morbi, est enim res naturalis et temporis determinatio, sed quia disponit ad morbos quosdam facilius suscipiendos, si causæ eorum accesserint.—PRIMEROS: *de Morb. Infant.*

† Exercise is the grand mean of health.—The irrational species are capable of affording it to themselves almost as soon as born ; and though infant children are not, they are passive, and can be *exercised*. Nature and instinct point out the expediency of it, and the fond mother who follows only her own inclination, naturally, and insensibly adopts it, and is continually stroking and playing with the little idol of her heart, whenever it is awake ; and as

a constant attendant upon all their early complaints.* The first of which, is the retention of the meconium, and the last (which may be properly termed a disease at all peculiar to infants), is the cutting of the teeth, in which likewise the state of the bowels is very much concerned.

Upon each of the above heads, it may be necessary to make farther observations as occasion may offer, in order to take notice of some accidental causes arising from mismanagement, or errors in the *non-naturals*, † as they have been called; especially in regard to the quantity of nourishment administered to infants, and an inattention to the state of their bowels.

The symptoms of these first diseases of infants, (by which we also judge of their nature), are chiefly retention and excretion; four belchings; sickness; vomitings; purgings; the nature of the matter thrown off; watching; inquietude; contraction, and sharpness of the features; blueness about the mouth; thirst; heat; the manner of breathing and of crying; retraction of the lower extremities; and pustules, or eruptions,

as it grows older, she is led on to give it more exercise, as it can bear it, and according to the satisfaction the infant never fails to manifest on the occasion.

* SYLVIUS DE LE BOE. HARRIS.

† Such are *food*, *air*, *exercise*, and the like.

tions, external, or internal. The pulse and urine are less certain marks than they are in older children, and adults. To these may be added, the openness, or firmness of the fontanelles, or moles, and of the sutures ; and the relaxation or contraction of the skin in general, and of the scrotum in particular.

Having thus briefly adverted to the general Causes and Symptoms, I shall now proceed to the consideration of the Disorders themselves ; and shall begin with the

RETENTION OF THE MECONIUM.

THE Meconium is that black, viscid, or tenacious matter, which, it is well known, every infant parts with by stool, for the two or three first days after it is born, or retains it to its manifest injury.

The ordinary source of infantile complaints has already been said to originate from something amiss in the first passages, according to the most ancient opinions*, and I have long suspected, that a foundation is sometimes laid for them, from not duly attending to an early expulsion of the meconium ; which will sometimes firmly adhere to the coats of the bowels, and remain for many days, unaffected even by powerful medicines, as I shall have occasion to remark as I go on.—I shall only observe in this

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place,

* HIPPOC. CELSUS, ÆGINETA.

place, that though it should not be all retained, yet a part will often remain much longer than has been usually imagined, and will come away, perhaps unnoticed, at a late period, where no retention of it has been suspected. Of this I can have no doubt, having been called to visit infants after the month has been expired, who have been unwell through all that period, for want of having been properly purged, and from whom meconium has still been coming away. A tea-spoonful of castor-oil, given once or more, has soon carried off a great quantity ; upon which all their complaints have disappeared.

The meconium appears to be no longer of use after the child is come into the world, unless it be to keep the bowels from collapsing, till they be replenished with the aliment the child is soon afterwards to receive. Whereas, if it be not soon carried off, it will not only change the quality of the milk, or other food, as it descends into the bowels, but itself also becomes highly acrid, (as it consists chiefly of gall) and cannot fail to produce indigestion, flatulency, pain, purging or costiveness, and other similar evils : And the meconium is farther disposed to this acrid state, on another account, *viz.* from admixture of atmospheric air. Whilst the infant remains inclosed in the womb, it is secured from all contact of air, and there-

fore the alimentary contents remain harmless and bland though increasing for so many months ; but it is well known, how soon every secretion or extravasation will become acrid, upon the admission of air into any cavity where it may be lodged. And it is, doubtless, on these accounts, that provident nature has imparted an opening quality to the first milk of all animals ; a certain indication to the rational species, to assist the expulsion of this matter, now no longer required. For though a child should even be suckled by its own mother, (in which case, there is, doubtless, less occasion for other assistance) yet we know that nature doth not, in every instance, always fully accomplish her own designs : and it is from some striking instances of the truth of these observations, that I have said so much on this subject, which I have also been the more inclined to, because so many writers have passed it over almost in silence.

I am aware that all those who esteem medical people to be officious disturbers of nature, have objected to their assistance in this instance, and conclude, that she would do the business much better if left to herself.*

And

* The Editors of the *Critical Review* offered a remark of this kind, upon this part of the work, in its former edition ; and is the only critique I remember to have seen. I have therefore no cause of complaint

And there are even some physicians of this opinion, amongst whom I find Dr. Buchan, whose abilities and reputation claim particular attention, though he, perhaps, may not be so much engaged amongst very young infants, as those whose peculiar province it is to attend them from the birth. But there can be no general rule without exceptions,* and as, doubtless, many children would do very well without any such assistance, so am I certain, many would not: and I believe, none can be essentially injured by constantly assisting in this work, provided the means first made use of be lenient, as they ought always to be.—It is the province of art to superintend nature, and not only to guard against her excesses, but so to watch

B 2

over

plaint against any writers of that description, and should not have noticed the present censure, if I were not well satisfied there is no room for such an objection. And indeed, it is now well known, that the formidable disease, so fatal to new-born children in the *West Indies*, called the locked jaw, or jaw-fallen,† is almost always owing either to unwholesome, and confined air, or to a want of purging off the meconium.

† See *Tetanus*.

* Vix ulla perpetua præcepta medicinalis ars recipit. CELSUS. *Præf. Lib. i.* p. 17.

16 *Antimonial Wine proposed by some.*

over her, as to ensure the accomplishment of her intentions, whenever we perfectly comprehend, and can effect them without the risk of doing harm.*

For this purpose, amongst others, a new remedy has of late years been recommended as preferable to any purging medicines whatever.† Mankind has ever delighted in extremes---no sooner has any thing, formerly judged to be hurtful, or even poisonous, been found in certain cases, to be very useful, than it is supposed to be capable of doing every thing, and supersedes all that the wisdom of former ages has proved to be salutary. Hence, some advantages experienced from the use of wine of antimony, in a variety of children's complaints, as far as they arise from one common cause, has induced some people to extol it as an universal remedy. But wherefore give an emetic, calculated to empty the stomach, in order to expel the meconium from the lower bowels?‡ It is universally allowed, and by this writer

* A Tree will produce fruit in its wild state ; but by human culture the tree is often preserved, and its fruit improved, far beyond its natural state.

† Dr. ARMSTRONG *on the Diseases most fatal to infants.* 1767.

‡ On examining the first-passages of still-born infants, (newly dead) it appears, that the large intestines contain the true meconium ; the smaller bowels, only a thin bilious fluid mixed with a little gastric

writer also, that emetics are not to be administered when the bowels are full, which, in this instance, is precisely the case. It is true, the wine of antimony does not always vomit children, nor will a little matter often-times do this, (as I shall have occasion to take notice very soon) ; it is sometimes, indeed, found to act as a purgative : but if this be the intention, why not adhere to the old, and more certain method, and direct at once such things whose proper operation may be depended upon ? Not the stomach, but the bowels, are the natural and safe outlet for most complaints of children, and a want of due attention to this circumstance has been productive of some evils, which many practitioners, I think, are not sufficiently aware of.

It is very evident, that some gentle purgative is indicated on this occasion, and that it should be of a kind that will create as little disturbance as possible, and especially should not be of an offensive, or indigestible nature ; though such have been very commonly advised. In general, indeed, a very

gastric juice. The stomach contains still less, as no bile can enter it but by regurgitation from the *duodenum*, and the gastric juice is in small quantity, not enough to be brought up by an emetic without violent straining ; which I should imagine it can answer no good end to excite by a vomit, the first hour a child comes into the world.

little matter will suffice ; perhaps a little syrup of roses, diluted with some thin gruel, and given occasionally by tea-spoonfuls, will mostly answer the end ; will also serve to keep the child quiet, and so prevent the nurse from giving it improper food. But if this should fail to procure stools, a watery infusion of rhubarb, (or a tea-spoonful of the wine, diluted as above) will be found preferable to the indigestible oily mixtures in common use.* In the country, where the above medicines may not be at hand, a little fresh whey and honey will be an excellent substitute.†

The

* See HARRIS.

† As I have professed writing for the benefit of the intelligent parent, as well as to assist regular practitioners, I shall take this early opportunity of dropping a hint in regard to the doses of medicines, as a kind of general guide, where the exact dose may not be pointed out. Indeed, it were impossible, in many instances, so to prescribe, as to afford no latitude to the discretion of those who are watching the infant, and are eye-witnesses to all its complaints ; and I might rather lead the less intelligent into errors, by attempting to lay down very particular and precise directions.

The rules I shall here offer will chiefly refer to vomits, purges, anodynes, (or composing medicines) and the *testaceous* powders, or absorbents.

Every one knows, that the doses of medicines should be adapted to different ages ; but these are not in mere arithmetrical or geometrical proportions, and their due relation is only to be ascertained by experi-

The objection now made to oily medicines is very much increased, from nurses scarcely ever giving the quantity that is directed, in the course of the first twenty-four hours, as it is always designed ; and administering the rest long after the child has begun to sick, or to feed. At this period, mixing with the nourishment, it has a direct tendency to produce indigestion, wind, and the very complaints, which the oils, administered in proper time, were designed to prevent. Not to add, that some kind of oily medicine being the usual purgative on this occasion, is an inducement to parents and nurses to procure

experience, and in a reference to all the varieties of constitution, and habits.

From the result of daily observation, one may say, for example, to a child of *seven years old*, nearly the *half* of the dose suitable for *adults*; to one of *three years*, the *fourth part*; of *one year*, the *sixth part*; and the *eighth or tenth part* to an *infant* in the *month*.

An *adult* person may take from fifteen to thirty grains of the *testaceous powders*, and double that quantity of *magnesia*, at a dose, to be repeated several times a day.—From fifteen to thirty grains of *ippecuanha*, and from one to two, of *emetic tartar*, as a *vomit*. From one to two *ounces* of *salts*, or of *manna*, and from ten to thirty grains of *jalap*, and from four to ten of *colomel* as a *purge*. From ten to thirty *drops* of *landanum*, and from half an *ounce* to two *ounces* of *syrup* of *white poppies*, as an *anodyne*.

From this two-fold direction, parents may, perhaps, attain to a more accurate estimation of the *dose* proper

cure a repetition of it, and to administer it whenever an infant happens to be costive during the month ; and from whence, the above evils may be frequently induced.

But it has been observed, the meconium is not always disposed to come away, even by the assistance of common purgative medicines. Having, therefore, begun with such as the above, if the child has no stool for twelve or fourteen hours after birth, and especially if it should seem to be in pain, a clister ought to be thrown up ; which may be repeated, if necessary, a few hours afterwards. And here I would observe, that in the cases where more powerful means are required, scarcely any evacuation will be procured by these gentle means ; for, as I have seen, wherever I could procure one copious stool by a clyster, or gentle laxative, the rest of the meconium has come away with little, or no farther assistance. But as it sometimes happens, that neither clysters nor purgatives have any sufficient effect for several days, very powerful means must then be made use of ; there being reason to suspect a suspension of nervous influence.

proper for their children, by means of the experience they may have had of the particular quantity of any of the above medicines usually found sufficient for themselves, whereinsoever that happens to vary from the dose here supposed to be proper for adults."

ence. I shall close this subject therefore, with a recent instance of this kind, (of which, I have seen many) as a proof of what powerful remedies may sometimes be required, and how necessary it is to pay some attention to this first complaint of infants.

The child was born of very healthy parents, (not at all of constipated habits) after a quick and comprehensively easy labour, on the 22d. of February.—To avoid prolixity, I shall not state the case in the form of journal; but shall only observe, that the child took a little rhubarb an hour or two after it was born; but having had no stool when I saw it the next day, I ordered a clyster to be thrown up. In the evening, the child became drowsy and insensible, and when rouzed, it moaned, but seemed unable to cry. It continued pretty much in this state, (and at times, seemingly, in great pain, and evidently convulsed) for six days; and was nourished chiefly by a tea-spoon with a little breast-milk, seldom reviving sufficiently to suck.

It had no stools, but such as made only a few spots on the cloths about the size of a shilling, till the twenty-seventh, and those were very small, hard, and lumpy. On the twenty-eighth it had more of this kind, and it had not till the twenty-ninth any thing like a proper stool, which was also mixed

mixed with hard lumps ; but on the third of March, they were thinner, and on the fifth came very freely.—In the course of six and thirty hours, I prescribed two ounces of the common infusion of senna, two drams of rochelle salts, four grains of jalap, and a grain of calomel ; besides purging clysters, and the use of the warm bath. The next day the child took four grains of ipecacuanha at two doses, and forty drops of the new wine of antimony, at four times (in the course of an hour) without any effect ; and at another period, six drams of castor-oil, besides several doses of manna.* Three days after the child got rid of the meconium, the thrush made its appearance ; which was slight, but continued above three weeks.

ICTERITIA, OR INFANTILE JAUNDICE.

THE Jaundice of infants seems always to have been improperly conceived of. Those who have written only on children's diseases,

* From such instances as these, as well as the remark already offered on the *Locked-jaw* of the *West-Indies*, the expediency of having recourse to some safe and effectual means of purging off the meconium seems to be evidently pointed out ; more especially when we consider the dangerous complaints, which are said to arise in some of the hospitals in *Paris* from an undue retention of this viscid matter.

diseases, have usually passed it over in silence, whilst others have considered it as rather a serious complaint, and have prescribed as for the jaundice of adults. On the other hand, parents and nurses have usually accounted the common yellowness that appears about the third day after birth (termed by some yellow-gum) as the true jaundice. Neither of these opinions seem to me to be just ; for the latter of these appearances requires no attention at all, and though infants are not subject to the troublesome jaundice of adults, (unless infected by the breast-milk) they nevertheless are liable to some affections of that kind which claim some attention. These are easily distinguished from the common yellowness, mentioned above, by the *tunica albuginea*, or white of the eyes being always very yellow ; but the nails are not tinged, as in the jaundice of adults, though it is probable they usually would be, if the complaint were long neglected, and the child suffered to be costive. I have waited some days to see if the yellowness would go off of itself, as the usual tinge does ; but it has always increased rather than diminished. It arises from viscid matter obstructing the gall-duets, which open into the *duodenum*, and therefore requires a little emetic. Wine of antimony is a very proper one on this occasion, as it may likewise procure two or three stools ; but

but as children in this complaint are not easily made to vomit, should the wine fail, I would advise three or four grains of the powder of ipecacuanha, which is more certain in its operation ; and the next day give four or five grains of rhubarb. Should the symptoms continue, the emetic ought to be repeated after two or three days, and rhubarb be given about every other day, till the yellowness disappears ; which, under this treatment, never continues more than ten or twelve days, unless the stools are of a very pale colour ; in which case a little more time, as well as the use of the warm-bath, will be required.

Women long afflicted with jaundice, during any part of their pregnancy, though actually brought to bed in that state, do not infect their children, unless they also suckle them ;* but, from some striking instances, I have found that sucking in that state is capable of communicating the true jaundice to a great degree, and that it will not be cured, but by the recovery of the mother or nurse, or by the infant being weaned, as well as properly treated.

The

* I have myself never met with such an instance ; but Mr. Baumes, who has been very attentive to the disease, once saw an infant so infected from the womb : but in this case, the child died very soon in a very diseased state, the internal part of the liver being in a state of suppuration.

The true jaundice, distinguished by the skin being every where discoloured, as well as the whites of the eyes, seems to be much more common among new-born infants in France, than in this country ; as appears by a memoir written by Mr. Baumes, and to which a prize-medal of the *Faculty of Medicine in Paris* has been adjudged.

In this work the various causes and nature of the disease are distinguished ; and a correspondent treatment pointed out with great accuracy and judgment. Throughout the tract there seems also to be much ingenious and plausible theory ; though I cannot agree with that able physician in supposing the jaundice to be occasioned by the retention of the meconium, otherwise than from this viscid matter sometimes obstructing the orifice of the biliary ducts ; for in the several instances I have met with of the most obstinate retention of that secretion, there has not been the least disposition to jaundice ; nor can I conceive, that any part of the meconium is usually absorbed in icteric cases, as Mr. Baumes has imagined ; neither does such an incident appear to be necessary in order to account for the frequency of the disease in that kingdom, or elsewhere.

As to the treatment, under the different circumstances there described, I meet with nothing that militates against the more general account I have given of this disease, or

the treatment adapted to it, under the form wherein it appears in this country.

INWARD-FITS.

A NY derangement of the first-passages is capable of giving rise to various complaints, among which, that of inward-fits, has lately been taken notice of by some medical people, but I think scarcely deserves the name of a disease. It demands attention, however, because so much has been said about it as to expose the fond parent to continual apprehensions, lest this subtle disease should be insensibly at work, and making way for more severe and outward convulsions.

A constant symptom in this kind of fit, as it is called, is the infant's little mouth being drawn into a smile ; which whoever has noticed must have beheld it with pleasure. And if the complaint extends no farther than this smiling, which is generally in its sleep, it arises merely from a little wind, and is certainly harmless, because the wind in this case is not really confined ; and therefore an immediate recourse to pukes or purges, is more likely to do harm, by straining the stomach, or by relaxing the bowels, than to do any good. Every body is acquainted with the effects of different degrees of irritation of the nerves, from the sensation produced by tickling with a feather, to that of a hard gripe

gripe, or a violent stroke. The first may be said to be pleasing ; and such, I doubt not, is the stimulus in question on the nervous coat of the stomach of little infants, and therefore produces so agreeable a smile, that I could never consider it as an indication of pain. Indeed, I know of no complaint that ought to be termed inward fits ; and I mention this, because nurses are continually talking to us about them, when children are perfectly well, and often give the fond parent needless distress, as well as many an unpleasant medicine to the child.* They are at the same time treating the true convulsion, whilst slight, in the same way, being led into the error by the ideas of inward fits ; a term they are ever using but have no precise ideas of, nor do any two of them mean the same thing by it. It were therefore better, perhaps, the term were altogether abolished ; as the child is either evidently convulsed, or has no kind of fit, at least none for which any remedy can be offered.†—If the child should

C 2 sleep

* It were certainly a good rule, to administer no medicine to infants for such symptoms as do not indicate some real complaint, unless where experience proves that such symptoms neglected are apt to fore-run some well known disease.

† Infants, as well as adults, do sometimes, indeed, die suddenly without any manifest convolution. But this more frequently happens after over-feeding,

sleep too long, and this smile should often return, the infant may be taken up, gently tapped on the back, and its stomach and belly be well rubbed by the fire ; which is all that can be necessary. This gentle exercise will bring a little wind from its stomach, and the child will go to sleep again quietly.

This complaint, however, is largely treated of by some writers, and Dr. Armstrong wishes to give a few drops of the wine of antimony ; but it is very apparent, that when he considers it as worthy of more attention than I have just now advised, it is either a true convulsion, in which the eyes are distorted, and the mouth is discomposed, instead of putting on a smile, or else he is prescribing for another disease under the name of inward-fits, which former writers have treated under the head of disorders arising from costiveness and wind. But if this little turn of the features should arise from constant over-feeding it, were endless to administer emetics ; the cause of the complaint

ing, and arises from a spasm of the stomach ; or sometimes of the heart or lungs ; and infants may then be said to die of inward-fits, there being no external convulsion ; but this is, by no means, the kind of affection usually understood by that term.

plaint is obvious, and upon the removal of it the remedy must rest.

Such has ever been my opinion of this much-talked-of complaint; and indeed I have not to this day, after a good deal of attention to infants, seen any thing myself to induce me alter it; or I would in this edition, have cheerfully retracted the preceding observations. As I wish, however, to afford all the information I can on every complaint, I have to observe, that it is conceived by some gentlemen of great respectability and experience, that though the term, inward-fits, has been often misapplied, there is really such a complaint, and that it generally proves fatal. Besides a little blueness of the lips, and slight turning up of the eyes, often noticed by nurses, this complaint is described to me as attended with a peculiar sound of the voice (somewhat like the croup) and a very quick breathing, at intervals; and is supposed to arise from a spasm of the stomach, lungs, or other vital organ; a complaint I have indeed too frequently seen,* but certainly very different from that usually known by inward-fits.

These symptoms are said frequently to attack the child in its sleep; and in their commencement will go off upon taking it up

* See Note, pages, 27, 28.

from its cradle. They are likewise observed to be induced by sucking or feeding, and to be increased upon any little exertion of body, or transient surprise, and in this manner to recur for a length of time, before they become alarming. The remedies proposed for the cure of this complaint are an emetic, on the first attack, and afterwards volatiles and fetids ; but, as it has been observed, not often to good effect.

In regard to costiveness and wind, which have been said to be the parent of what nurses commonly term inward-fits, as they do not always arise from one and the same cause, and are productive of other complaints than those above mentioned, I shall consider them by themselves ; which, it is presumed, will be pursuing a more rational plan, than adhering to a term obscure in itself, and indicative of a disease not well defined, and which therefore may tend to mislead the generality of readers..

DISORDERS *arising from COSTIVENESS
and WIND.*

IT has been usual with ancient writers, when conciseness and accuracy were not so much considered as in the present day, to treat of costiveness and wind as distinct heads of complaint; and for the reasons aforementioned, as well as from this little tract being calculated for general usefulness, and not merely for medical readers, it may not be altogether improper to comply with this custom.

Wind is but a mere symptom of some preceding or attending complaint; nor are its troublesome effects either occasioned or increased by air taken in with the food, as many people have imagined; atmospheric air being essentially different from that produced by indigestion, whether owing to the weakness of the stomach, as it is called, or the improper quality or quantity of the food taken into it.. It may, however, prove a source of many complaints, and create watchfulness, startings, hiccoughs, vomitings, and even convulsions, if not timely attended to, especially if the infant is costive.

Costiveness is either constitutional, or accidental, which ought always to be distinguished, the former being oftentimes harmless; and, indeed, children of such a habit

bit of body are frequently the most thriving. If the mother should be very constipated, her children generally are so ; and such a disposition, (whilst they continue in health) ought not, I believe, to be counteracted, though it will be prudent carefully to watch it. And this will be especially necessary, in the case of children who are subject to fits ; fine lusty infants being often seized with violent convulsions, without any other apparent cause than a natural costive state of the bowels, and as uniformly recovered from the fits, merely by procuring stools, and breaking off the wind. And this disposition to fits has taken place long before the ordinary period of teething, and has continued till children have been a twelve-month old ; at which time the solids, and especially the nervous system, has appeared to get stronger. In such habits, a quarter of an ounce of manna, or the like quantity of the syrup of roses, may be put into any liquid, and as much of it given by tea-spoonsful, as shall open the belly : or a tea-spoonful of castor-oil, * or from five to ten drops of the compound tincture of aloes, may.

* Oil of castor may be rendered very acceptable to children, if rubbed down with gum arabic, and a little manna, and afterwards made into a draught or mixture with some dill-water, and the addition of a drop or two of the compound spirit of ammonia, where that may be proper.

may be taken two or three times a-week. And here it may not be useless to observe, that rhubarb will not be a fit purgative, though it be joined with magnesia, which will not sufficiently counteract its restringency. Another reason for objecting to this compound, is that of its being the almost constant prescription of nurses on every occasion, whose *indiscriminate* use of it is generally needless, and sometimes prejudicial; rhubarb alone, in ordinary cases, answering all the purpose intended, whilst the magnesia makes an unnecessary addition to the bulk of the medicine, which should always be avoided for children. A few grains of magnesia in a spoonful of water, and sweetened with a little manna, forms a much neater medicine, and in costive habits, which usually abound with acidity, answers very well in *early* infancy.

But if the child be otherwise in health, it has been said, it is, in general, inadvisable to do much to counteract the natural habit of body. I have formerly, even during the month, directed manna, even to half an ounce at a time, to very little purpose, unless it were almost daily repeated, and have at other times given from three to five grains of jalap; till I learned there are some constitutions, even in infants, where the bowels cannot be kept open without a daily exhibition of some purgative medicine,

cine, and that many such children are as well left to themselves, and require only to be watched. If a stool should be wanted, however, a suppository made of a little slip of paper, twisted up, and well moistened with oil, may be very easily introduced, and will generally answer the purpose: or should this fail, a bit of *Castile soap* may be introduced in like manner.

Should such a costive state of the bowels produce griping pains, which may be known by the drawing up of the legs, or of the scrotum, and a certain manner of crying; or should the costiveness be accidental, it must speedily be remedied; and if the occasion of it be an improper food, which is very often the case, the food must immediately be changed. If the child be not usually costive, rhubarb * is often the best purgative, as it strengthens the bowels afterwards, infants being much more subject to an over-purging than to almost any other complaint,

* Some writers have in this case recommended oil, and particularly the *French*, who administer oil of almonds to infants much too frequently. Mr Le Feubre de Villebrune therefore, in the translation with which he has honoured this work, gives the preference to oils; but I must beg leave, in turn, to differ from him, being perswaded, there are few cases beside disorders of the chest, in which any kind of oil, but that of castor, will not be injurious to young infants, and particularly in affections of the first-passages.

complaint, especially if brought up by hand. It sometimes happens, however, that much more powerful medicines than rhubarb may be required, whether the child be naturally costive, or not ; and in such cases, much caution is necessary on the part of parents and nurses : For, where a proper dose of senna-tea has proved ineffectual, it is surprising what large doses even of rough purges have been given in vain, or sometimes to the injury of the child. On such occasions, I would rather advise a recourse to clysters, and especially those made of succotrine aloes. From five to twenty grains, according to the age of the infant, dissolved in boiled milk, will rarely, if ever fail of procuring two or three stools, especially if preceded by the exhibition of a purge. But even drastic clysters should be administered with caution, and ought not to be very often repeated, especially to very young children ; though less hazardous, in every view, than the frequent repetition of purges of a similar kind.

It may be necessary here to observe, that purgatives for infants ought generally to be made potentially warm, by the addition of a little ginger, pounded cardamom-feed, carraway-tea, or dill-water ; which is of more consequence than is usually apprehended. I have known a careful attention to this circumstance alone, happily suppress complaints
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in the bowels, which had long continued obstinate; though, in other respects, properly treated.

As there is usually too much acidity in the first-passages in costive and windy habits, a little magnesia may be given for a few days after the costiveness has been removed; and if the child be suckled, the nurse's diet must be attended to. If any flatulency should still remain, (which will not often be the case if it has arisen merely from constipation) a little dill-water is the most harmless carminative. But should it be an attendant upon a lax state of the bowels and indigestion, its remedy will consist in the removal of those complaints, which will be noticed in their place.

I have hitherto spoken chiefly of Costiveness; wind being, however, likewise sometimes a real complaint, though it should not happen to be so confined as to become an occasion of fits. The only instances of this kind, indeed, that I remember having seen, have been in new-born and very lusty infants, whose mothers have also been peculiarly distressed by affections of that kind. This is, indeed, a somewhat anile way of speaking, but it states the precise fact; and one instance of an infant suffering in this way was so remarkable, that it may be worth noticing in this place.

In this case, the meconium began to pass off soon after birth, but not without repeat-

ed clysters, purgatives, and the warm-bath, and was peculiarly viscid, as well as in vast quantity. Nevertheless, the infant appeared, for several days, likely to be strangled, and was black in the face, merely through the abundance of wind in the first-passages ; though it was continually breaking off both by the mouth and the bowels, and by that peculiar, and very loud noise, when it came upwards, frequently observed in the hysterical spasm of adults, and continuing for several hours together, so that the infant was often thought to be dying. The whole face, except the nose, became exceedingly swelled, so that the infant could scarcely open its eyes, though without any discolouration of the skin ; being probably owing to wind diffused through the cellular membrane ; the tumor subsiding immediately upon getting rid of the wind from the stomach and bowels.

These symptoms, however, yielded to carminative juleps, and purging medicines ; and the infant after the meconium was all come away, was freed from every complaint, without any farther semblance of fits, though frequently apprehended.

WATCHING, or WANT of SLEEP.

THIS is frequently a symptom of the foregoing complaints, and is to be removed by opening the belly, and afterwards administering some pleasant and carminative pearl-julep ; * which will then frequently act like an opiate † by restoring rest. Sometimes, indeed, this has succeeded so well, when given in large doses, that I have been suspected of having really given some sleeping medicine ; which would in these cases prove exceedingly hurtful, as the watchfulness is generally a mere symptom, and not a disease ; though when very obstinate, it is

* This remedy has been so called from having been formerly composed of prepared pearls, and the name is here retained because familiar to some readers ; but the pearls having no virtue peculiar to them, are very seldom made use of. The julep is now prepared from the shell-powders, or testacea. —As this term (or testaceous powders) occurs very frequently in this work, it may not be amiss to observe, that testacea consist of prepared oyster-shells, crabs claws, crabs eyes, pearls, and red-coral ; which differ but little from each other. They are likewise denominated absorbents, in which latter class, are also ranked prepared chalk, and magnesia ; the former is more powerful and binding than any of the testacea, and the latter is, on the other hand, moderately opening.—Either of them may may be given to infants, from three to ten grains at a dose, three or four times a day.

† See HARRIS *De Morbis acutis Infantum.*

is sometimes the harbinger of epilepsy, and then requires purgative medicines. I cannot, therefore, avoid taking notice in this place, of the destructive custom amongst nurses, of giving opiates, in one form or other ; which, however useful on proper occasions, are sure to act as a poison, and sometimes not a very slow one, when injudiciously administered, and never can be more so, than in a costive state of the bowels.

Watchings may arise from worms, purging, gripings from acrid breast-milk, or other food, and from indigestion, as well as from every thing capable of producing pain ; each of which will be considered in their proper place. The seat of this complaint is, indeed, usually in the first passages, and in very young infants is frequently owing to costiveness. I shall only observe farther, if watchfulness be confined only to the night, it is probable, the child sleeps too long in the day time, which may be remedied by keeping it moving, and playing with it throughout the day ; of which farther notice will be taken, under the head of *Management of Children*.

The preceding complaints would naturally lead me to consider the *Thrush*, and other disorders connected with the state of the first-passages ; but it is necessary first to mention one or two of a very different kind, which either exist at the birth, or

40 *Imperfect Closure of the*
appearing very soon afterwards, would otherwise be much out of place.

**IMPERFECT CLOSURE of the FORAMEN
OVALE, and CANALIS ARTERIOSUS ;
with other PRETERNATURAL CONFOR-
MATIONS of the HEART.**

THESE morbid deviations appearing in different parts, * have in all the same tendency, viz. in a greater or less degree, to obstruct the passage of the blood through the lungs, which in some instances has continued nearly the same as in the unborn-fetus. The peculiarity, is sometimes in the pulmonary artery, which is constricted, or closed, as it rises from the right ventricle; at others, in the *septum cordis*, which has an unnatural opening, affording a free communication between the two ventricles; and sometimes in the imperfect closure of the *foramen ovale*, or the *canalis arteriosus*.

These sources of disease are mentioned merely with the view of pointing out the symptoms by which they may be known, and not of attempting a remedy; which is out of our power. The recital, however, may serve to prevent fruitless attempts, and perhaps

* See Morgagni, Epis. 17. Art. 12. Lond. Med. Journal pag. 4. and Med. Observ. & Inq. vol. vi.

perhaps the aggravation of the symptoms, and consequent distress of the patient, where upon due knowledge of the disease, art has, evidently, nothing to offer. The imperfections are owing merely to an original malformation of parts, or in the two latter instances, to a deficiency in the powers of the system soon after birth ; the only time in which that diversion to the circulation can take place, which nature has intended upon the change made in consequence of respiration.

The precise time when this change should take place, is not attempted to be settled, the passages being open in children of very different ages ; nor do both always close at the same time. It is conjectured, however, that this process ought to begin from the birth, as it is found to do in the remains of the vessels of the navel-string ; * so that, although the fatal apertures in the heart should not be actually impervious at the end of some months, it is imagined a constriction usually takes place, and that, at least, some check is given to the blood's passing from one side of the heart to the other, in the free manner it does in the fe-

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tus,

* It is probable, however, that they are not very firmly closed for some time, as I have easily forced the vessels open, by an injection, in children who died at the end of the month.

tus. This, it is natural enough to conceive, and I apprehend, is owing to a greater quantity of blood rushing into the lungs, in consequence of respiration, (which lessens the difficulty of entering that organ); by which means, a greater quantity flows into the left auricle from the pulmonary veins, which filling the part, prohibits an entry from the right. Upon the like principle, the *aorta* being more distended by a large quantity of blood from the left ventricle, prevents the pulmonary artery from emptying itself into it by the *canalis arteriosus*.

Sometimes one of these apertures is found open, and the other closed up, especially the *canalis arteriosus*, which is of the greater consequence; the *foramen ovale* having in several instances been found pervious in adults; and it is imagined is always so, in those divers, who can remain the better part of an hour under water.

Whether the preternatural aperture be in the vessels, auricles, or ventricles, or wheresoever any morbid stricture may be, whenever it may prove of any consequence, the constant symptoms attending it are a discolouration of the face and neck, with a sallow-blue, or leaden colour of the lips, such as is met with in some fits of asthma. These take place soon after birth, and the discolouration is increased, and attended with difficulty

difficulty of breathing, as often as the child is any wise agitated ; but are not relieved by procuring stools, by the warm-bath, or any other mean made use of as a remedy for fits ; nor can be, but by the child being kept as tranquil as possible.

If the aperture be in the *canalis arteriosus*, children usually sink very soon under the complaint, of which I have seen one instance only a few months since ; but if the aperture be in the inferior parts of the heart, infants may survive for months, or even for years. A recent instance of which, with an accurate account of the disease, is recorded in the third vol. of the *Medical Transactions of the College*. In such instances, the system having been accustomed to the effects of this derangement, is better able to withstand them ; the patient, however, can endure but little motion, the heart becoming thereby surcharged with blood, and respiration rendered more difficult ; hence also the blood is detained in the extremities, and the face, neck, and hands become particularly discoloured. Some time, indeed, before the patient sinks under the disease, the symptoms are aggravated, and almost the least motion endangers suffocation.

ERYSIPelas INFANTILIS.

IN the former edition it was observed, that this complaint did not appear to have been distinctly noticed by any preceding writer.* This being now, confessedly, the case (at least in respect to the form in which it now appears) it seems necessary to give a name to the disease, which, it is apprehended, may with propriety be termed *Erysipelas Infantilis*.

It is a very dangerous species of the spurious, or erisipelatous inflammation, which I have not met with, but in lying-in hospitals. The ordinary time of its attack being a few days after birth, it was remarked in

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* Hoffman, indeed, though he makes no mention of any such complaint in his *Morbi Infantum*, has the following intimation in his chapter *de Febre Erysipelacea*, and it should therefore seem, was acquainted with that species of the disease which appears in the more simple form of erysipelas; but which he had noticed only in the region of the belly.—“Umbilicalem regionum in infantibus frequenter infestar, ac inde per abdomen spargitur, cum gravibus pathematis, funesto ut plurimum evenitu.”

De Febre Erysipelacea, sec. i. cap. xiii.

The French have likewise spoken lately of a somewhat similar affection, combined with different endemic complaints infecting crowded hospitals: the disease, however, does not appear to have been anywhere noticed in its *simple* form.

the former edition, that it was thought never to appear later than the month ; but I have since seen it in a child of two months old : and the late Dr. Bromfield informed me, that he had noticed it in a child much older. It seizes the most robust, as well as delicate children, and in an instantaneous manner ; the progress is rapid ; the skin turns of a purplish hue ; and soon becomes exceedingly hard.

The milder species of it appears often on the fingers and hands, or the feet and ankles, and sometimes upon, or near the joints, forming matter in a very short time. The more violent kind is almost always seated about the pubis, and extends upwards on the belly, and down the thighs and legs ; though I have two or three times seen it begin in the neck. The swelling is but moderate, but after becoming hard, the parts turn purple, livid, and very often mortify ; especially in boys, when it falls on the scrotum ; the penis swells, and the prepuce puts on that kind of emphysematous, or windy appearance, which it has in children when a stone is sticking in the passage ; or in the dropsy of the scrotum.

Upon examining several bodies after death, the contents of the belly have frequently been found glued together, and their surface covered with inflammatory exudation, exactly similar to that found in women who have

have died of puerperal fever. In males, the *tunicæ vaginales* have been sometimes filled with matter, which has evidently made its way from the cavity of the abdomen, and accounts for the appearances of the organs of generation just now described : in females, the *labia pudendi* are affected in like manner, the pus having forced a passage through the abdominal rings.

Various means were made use of at the *British Lying-in Hospital* without success, though the progress of the inflammation seemed to be checked for a while by satur-nine fomentations and poultices, applied on the very first appearance of the inflammation ; but it soon spread, and a mortification presently came on ; or where matter had been formed, the tender infant sunk under the discharge. It is now some years since I proposed making trial of the bark, to which sometimes a little *confectio aromatica* has been added ; from which time several have recovered. My colleague Dr. Garthshore, has for several years past directed the application of linen compresses wrung out of camphorated spirit, in the place of the compound water of acitated litharge which has proved more successful in checking the inflammation in several instances ; nevertheless, the greater number of infants attacked with this disorder, still sink under its violence, and many of them in a very few days.

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Since the former edition of this tract, the same disease, as I apprehend, has appeared once in a new form, in the *British Lying-in Hospital*. In this instance, the infant was not only *born* with hard, and sublivid inflammatory patches, and ichorous vesications, about the belly and thighs, but other spots were already actually in a slate of mortification. An eschar soon spread to near three inches in length upon the spine of the *tibia*, and other smaller ones appeared about the legs, and on several of the toes and fingers. The parents of the child appeared to enjoy good health, and the mother had plenty of good milk, which her infant was fortunately able to take in great quantity. The child was hereby duly nourished ; and taking likewise every day, from the time the mortification began to spread, from four to six ounces of a strong decoction of the bark, it was supported under an excessive discharge of matter, through this tedious disease. The parts affected were at the same time frequently fomented, and were sometimes wrapped up in warm cataplasms, and at others, dressed with *theriaca*, as the sloughs became loose ; and were covered with compresses wrung out of camphorated spirit. The infant, however, lost two joints of one of its fingers, and the first of another ; all the other fingers, and the toes, contrary to expectation, throwing off the mortified parts, were

were recovered entirely, and the child was sent out of the hospital perfectly well ; and I had the satisfaction of seeing it in good health, several months afterwards.

APTHÆ, or THRUSH.

HAVING considered the above early complaints, I return to those which owe their immediate origin to some affection of the first passages, as they are called.

It is amongst the vulgar errors, that the thrush is a very harmless complaint, or is even desirable to a child in the month ; for it is said, if it does not then make its appearance, it certainly will at a more advanced age, and will then prove fatal, or will, at least, attend the patient in his last illness. The fact is, it is a disease of debility, and therefore attacks very young, and very old subjects, especially if otherwise weakened. From the above mistake, however, the disorder is often neglected in the beginning, whereby the acidity in the first passages is suffered to increase, which always aggravates the complaint. It is, indeed, a much milder disorder in this island than on most parts of the Continent (through *a priori* we might perhaps, suppose it would be otherwise) particularly in *France*, where it reigns as a malignant epidemic, especially in the

Hotel Dieu, and *Foundling Hospitals*, known by the names of *Muguet* and *Millet*. † The thrush, however, is as much a disease, as any other that appears in the month, and is connected with most of the foregoing complaints; a proper attention to which may very frequently prevent it.

This disorder is so well known, as scarcely to require any description, and generally appears first in the angles of the lips, and then on the tongue and cheeks, in the form

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† It has been already remarked, that several hospital diseases in *France* are more complex than with us, possibly from their infirmaries receiving a much greater number of patients than ours, and their apartments and beds being consequently less clean, as well as the air more foul, and disposed to multiply the contagion.

This is remarkably the case in regard to the diseases of infants, whose temperament is a singular union of debility and spasm, which the *French* have aptly termed *Laxité vibratile*.

The *Muguet* is a striking instance of the above mentioned tendency, it being altogether an hospital disease; which though distinguished by this name, appears to be a malignant thrush, and is frequently attended with a species of the infantile erysipelas.
* When so accompanied, it is said to be constantly fatal, unless the hard and tumid parts terminate in benign abscesses, and suppurate kindly; which is rarely the case, they being more commonly found to mortify.

* See *Mémoirs de la Société Royale de Médecine anno 1779.*

of little white specks. These increasing in number and size, run together more or less, according to the degree of malignity, and compose a thin, white crust, which at length lines the whole inside of the mouth, from the lips even to the gullet, and is said to extend into the stomach, and through the length of the bowels ; producing also a redness about the anus. When the crust falls off, it is frequently succeeded by others, which are usually of a darker colour than the former. But this is true only in the worst kind of thrush ; for there is a milder sort, that is spread thinly over the lips and tongue, which returns a great many times, and always lasts for several weeks. I have seen this so very often the case, that when I observe a child to have the complaint very very lightly, and that it does not increase after two or three days, I venture to pronounce it will continue a long time, but will be of no consequence. Care, however, ought to be taken that the child be not exposed to cold.

The thrush is said to be generally attended with fever, but this is not usually the case where the thrush is an original disease but when consequent to severe bowel complaints, erysipelas, and other infantile disorders, it is, indeed, often accompanied with fever, and when so, proves either favourably critical, or the infant usually sinks very soon.

soon. In ordinary cases, however, I am confident in nine out of ten, there is not the least fever, though the mouth is often so much heated, as to excoriate the nipples of the nurse, and becomes so tender, that the child is often observed to suck with reluctance and caution.—It is an old observation amongst nurses, and there is some foundation for it, that very long sleeping, in the course of the first week or two, is often a forerunner of this complaint.

It has long been a received opinion, that the thrush must appear at the anus, and nurses will seldom allow it to be cured if it does not ; but the truth is, that its appearance there is only a mark of the degree of the disease, and not in the least of its cure, and is not, therefore, generally to be wished for. The redness about this part is occasioned by the sharpness of the secretions in the bowels, and consequently of the stools, which lightly inflame and sometimes excoriate the parts about the anus, and in a bad thrush will do so long before the complaint is going off ; but in the lighter kind, no such effects are produced, or are, at least, very slight. And, indeed, this redness has been so often mentioned to me as an indication that infants must certainly have already had a slight thrush, or be likely to suffer by it very soon, where children have escaped it altogether ; that I have ventured to imagine

such infants may be least of all liable to it, if otherwise in good health; at least, my experience seems hitherto to support that idea. And I have even conceived, that the acidity of the first passages being in some children more confined, may prove a remote cause of such infants being troubled with the thrush; whilst others by an open belly, and firmer *viscera*, may escape it, at the expence only of this soreness of the external parts, which often continues for several days.

The remote cause of this disease, seems to be indigestion, whether occasioned by bad milk, or other unwholesome food, or by the weakness of the stomach.—Perhaps thick victuals, particularly if taken hot, and made very sweet; also covering the face of the child when it sleeps, or its breathing the confined air of the mother's bed, may be amongst these causes, and ought therefore to be avoided.—The proximate cause, * is the

* If such a term, after all that Gaubius and later professors have advanced, may be used in any sense distinguishable from the disease itself, it is presumed, that the circumstances enumrated may be distinguished from those termed *remote causes*. Should this not be allowed of, the term *proximate cause*, seems to be perfectly useless, and one to which we can never affix any precise ideas; the *cause* and the *effect* being confounded.—But I do not mean to enter far into such a controversy, and have touched upon

the thickness, or acrimony of the juices secreted from the mouth, fauces, stomach, &c. producing heat and soreness in these parts.—A tea spoonful of cold water given every morning has been a good prophylactic, or preventive.

Much has been said in favor of emetics, especially wine of antimony, as being almost a specific for this disease, but I cannot say it has proved so with me; nor can I see any sufficient cause for departing from the more ancient practice, in the treatment of this very common complaint.

There can be no objection, after having properly opened the bowels, to administering an emetic, and where the thrush is of a dark colour, and the whole inside of the cheeks are lined with it, I believe it will be useful, by emptying the stomach of the crude juices oozing into it from the glands of this part. But, I think it would be almost as endless, as it would generally be prejudicial, to persevere in the use of emetics, for days, and even weeks together, and is both a severe, and an unnatural method of treating

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upon it rather by way of apology for the use I have made of the term, in this and other parts, and to mark an obscurity which I leave those to settle whose province it may be to take the lead in such matters. It were well, however, if some able pathologist could affix some idea that might be universally adopted, so that when we meet with the term in different authors, no reader might be at a loss for the meaning.

a tender infant, in which the bowels are always the most natural outlet for its complaints; on which, therefore, nature uniformly throws the offending matter on almost every occasion, as appears plainly in teething, in which the first passages cannot be primarily affected.

I believe, therefore, where there is no fever, nor any uncommon symptom, testaceous powders are the best and safest remedy; which may be joined with a little magnesia, if the body be costive; or if in the other extreme, and the child is very weakly, two or three grains of the compound powder of contrayerva in its stead. Some such preparation should be administered for three or four days successively, and afterwards something more purgative, to carry down the scales as they fall off from the parts. For this purpose, rhubarb is generally the best; but when the thrush is very violent, is of a dark colour, has come on very rapidly, and the child is lusty and strong, a grain or two of the powder of scammony with calomel,* may be joined with it, agreeably to the

* A very good method of administering this powder, and other metalline preparations, is that mentioned by *Dr. Armstrong*, by directing it in the form of a pill which may be broken into small pieces, and given mixed up with the child's food; by which means, it will not precipitate, and be left at the bottom of the spoon, as is sometimes the case when such remedies are administered in powder.

the idea of HEISTER; but this must be given with caution. After the purgative, the testaceous powders should be repeated for two or three days as before, till the disorder begins to give way. Afterwards a tea-spoonful of camomile-tea, or a few drops of the compound tincture of gentian, well diluted, may be given two or three times a day with advantage.

The choice of the testaceous powders, on which some writers have said so much, is, I believe, of very little importance; the purest and softest are preferable. The design of these medicines, being to absorb and correct the predominant acidity,* their effect will be discovered from the kind of stools that succeed, and the dose may therefore be increased or diminished, or they may be altogether discontinued, as circumstances direct. In the mean time, if the child is suckled, the nurse's diet should be attended to, and in general, her usual quantity of porter or ale, (which is almost always more than sufficient) should be diminished.

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* The French physicians are of opinion, that the thrush is owing to what they call a putrid alkaline humour, or something analogous thereto, rather than to an acid. But this cannot be the case in the ordinary thrush, as is manifest both from the appearance, and the sour smell of the stools, as well as from the more certain remedies for the complaint, which are alcalis and absorbents.

In regard to applications to the part, it is necessary to observe, that as they have little to do in curing the complaint, it will be improper to have recourse to them very early. I know, indeed, it is very common to begin with them, but they serve only to increase the soreness of the parts, (especially in the manner they are generally used) and to give a deceitful appearance of amendment. If the insides of the cheeks and tongue are thickly covered with sloughs, it may sometimes be convenient to clean the mouth once a day ; but it will in general be useless, till the complaint is past the height, the sloughs disposed to fall off, and the parts underneath inclined to heal. Proper applications will then have their use, both by keeping the mouth clean, and constricting and healing the raw, and open mouths of the excretory vessels.

For this purpose, an hundred different lotions and gargles have been invented, which from the earliest times have all been of an astringent nature.—Honey of roses and spirit of vitriol, or of sea-salt, as recommended by Etmuller and Dr. Shaw, form a very good one ; but nothing is preferable to borax, which some advise to be mixed up with sugar, in the proportion of one part of the former to seven of the latter : a pinch of this put upon the child's tongue will be licked to all parts of the mouth. But

I prefer a mixture of borax and common honey, (about two scruples or a dram of the former to an ounce of the latter) which hangs about the fauces better than in the form of powder. Either of these may be made use of as often in the day as shall be necessary to keep the parts clean, which they will effectually do, without putting the infant to pain, by being forcibly rubbed on. I must own, I have frequently been distressed, at seeing nurses rub the mouth of a little infant, with a rag-mop, as they term it; till they have made it bleed; and this operation they will often repeat half a dozen times in a day.

It only remains to take notice of the black thrush, as it is called, which is confessedly a very uncommon complaint in the infant state. Dr. Armstrong says he has never met with it. I have seen only two instances of it, which were in strong and healthy children; but the parts were not perfectly black, and if that be intended by the name, these cases might not be precisely that complaint: they, however, both proved fatal. After the stomach and bowels have been cleansed, I believe, a decoction of the bark, with a little aromatic confection, is the most likely medicine to be of service, and is sometimes necessary in the worst kind of common thrush, when the succeeding sloughs are ver-

ry opake, thick, and of a dark colour ; which is, however, always a dangerous symptom.

The RED-GUM, or BENIGN-ERUPTION.

THE red-gum is an efflorescence on the skin, appearing usually in small spots, often confined to the face and neck ; but at others, it extends to the hands and legs, and even the whole body, appearing in very large patches, and sometimes raised above the surface. It will likewise appear in the form of small pustules, filled with a limpid, or sometimes a purulent or yellow liquor ; at least, I have never known what name to give this kind of eruption, but that of a *rank* red-gum, as it happens only in the month, or soon afterwards, and never gives any trouble. There is another species as small as pins heads, or even their points ; firmer than the former ; often of a pearl colour, and opake, which has generally been accounted a kind of red-gum ; but it has of late been suggested, might for distinction sake, be termed *white-gum*.* Every species of this eruption is produ-

* It is to this complaint, that Vogelius seems to give the name of *achores* ; but the old writers differ in this respect—of that complaint, however, more will be said in another place, when speaking of disorders described under obsolete terms,

produced by the same cause as the thrush, but can scarcely be termed a complaint, being a kindly effort of nature to throw off some acrimony ; consequently an evidence of the strength of the constitution, as the thrush is, usually, of its weakness. In the former, nature throws off the offending matter on the surface more completely than in the latter, and therefore, when the eruption is slight, requires no assistance.

On this account it is, I apprehend, that writers have not usually taken notice of it, though it should seem requisite, if only for the satisfaction of parents, who are sometimes distressed on account of it, especially if it be of the more extensive and rank species. It is necessary only to give a little tef-taceous powder, or magnesia, according to the state of the bowels, and to keep the child moderately warm, otherwise the rash striking in, the acrimony will fall on the first-passages, and be succeeded by sickness, or purging, (till the eruption appears again on the skin) or not unfrequently by the thrush, or a flight return of it, if the child has lately recovered from it.

ERUPTIONS *on the SKIN.*

IT is, by no means, my intention to enter largely into this extensive subject, but imperfectly understood, perhaps, even to this day. In another part of the work I shall treat of the scall'd-head, and two or three other troublesome affections of the skin, but shall at present confine myself to such eruptions as are peculiar to the state of infancy.

Infants are liable to various anomalous kinds of rash, both in the mouth, and till the period of teething is over. The early ones may be regarded as a sort of red-gum, and children who are most subject to them, generally have their bowels in a better state; the rash carrying off, as has been said, the acidity * with which they so much abound.

It may be remarked, however, that when infants at the breast are inclined to frequent returns of some eruption on the skin, if the child be always indisposed at such seasons, the rash will often be found owing to some ill quality in the breast of milk, which ought therefore to be examined, and particularly in regard to its taste. On such occasions I

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have

* See Harris, Pages 22, 23.

have found, that milk which has been above a twelve-month old, has contracted *a very unpleasant* flavour, and that upon changing the wet nurse, a very ill looking rash has soon afterwards entirely disappeared, together with the other complaints.

One species of these early rashes often takes place about the time of teething, and not unfrequently at the decline of fevers or severe bowel complaints ; insomuch that, upon a sudden appearance of it during a serious illness, I have often ventured to prognosticate the recovery. This rash very much resembles the itch, both in regard to the little watery heads and foul blotches ; and is confined to no particular part of the body, though it appears more frequently about the face and neck. Indeed, I have seen the whole body so covered with it (and mixed with an eruption about the face, of a different appearance, and evidently red-gum) that in a consultation, it has been by some taken to be the true itch. This eruption is certainly salutary, and even critical, requires nothing but to avoid taking cold, and is mentioned only because it is not an uncommon appearance, and parents who are unacquainted with it, are apt to be alarmed at it.

But there is a very common rash that calls for more attention, and to which medical writers have given the name of *Crusta lactea*

(*Lactumen*, or milk blotches), which has a very unpleasant appearance, but is notwithstanding equally innocent with the former, and even prevents other complaints. I think I never saw an infant much loaded with it, but it has always been healthy, and cut its teeth remarkably well. Indeed, it falls to the lot of the finest children, and such as are well nourished ; whence some have imagined it owing only to the richness of the milk.* And it is remarkable in this eruption, that however thick and long-continued the scabs may be, the *crusta lactea* never excoriates, nor leaves any scar on the parts.

It appears first on the forehead, and sometimes on the scalp, often extends half-way over the face, in the form of large loose scabs, and appears not very unlike the small pox after they are turned. Very little, I believe, is necessary to be done ; but in bad cases a perpetual blister may sometimes be of service. It usually disappears of itself when the child has cut three or four teeth, though it may sometimes continue for several months, and in a very few instances even for years : in such cases, the *Harrowgate*, or any other sulphureous water will have a good effect ; but the medicines commonly prescribed do nothing. I have known testaceous powders

* See ASTRUC

powders and various alteratives administered to no purpose, as people of rank are very anxious to have it removed if it be possible. I was lately consulted for a child who had taken a grain of calomel, at short intervals, for several months without any benefit, and fortunately without any injury ; which is rarely the case when powerful medicines are administered unnecessarily. This rash will now and then make its appearance very early, and has then been mistaken by those who are not much accustomed to very young children, for the effects the venereal disease. I not long ago saw such a case, and advised only to keep the body open with a little magnesia ; the complaint got no worse, and upon cutting some teeth, disappeared as usual. I have known it, however, disappear suddenly, previously to any teeth being cut, and after some weeks become more violent than ever ; the infant remaining all the while in perfect health.

It were almost endless to enumerate the various kinds of rash to which infants are liable, but I mean chiefly to confine my remarks to the more important, or rare ones, and such as may not have been described by preceding writers. Among such is the following, whose unusual appearance are apt to alarm parents and others, not accustomed to see them.

The first I shall notice appears chiefly in teething children, very much resembles the measles, and has been sometimes mistaken for it. It is preceded by sickness at the stomach, but is it attended with very little fever, though the rash continues very florid for three days, like the measles, but does not dry off in the manner of that disease. It requires nothing more than the shell-powders, or sometimes the addition of a little nitre and compound powder of contrayerva, with a dose or two of rhubarb, or other gentle laxative, on the going off of the rash.

An eruption still less frequently met with appears sometimes after children have cut all their first teeth. I know not what name ought to be given to this kind of eruption, which breaks out in the form of round lumps as large as midling-sized peas, very hard, with a very red base, and white at the top, as if they contained a little lymph.

They come out suddenly without previous sickness at the stomach, are not sore, disposed to itch, nor ever give any trouble, and are seldom seen but on parts that are usually uncovered, and are sometimes there in great numbers, resembling the distinct small-pox; but are harder, more inflamed, and less purulent.

Alarming, as well as unusual, as is this appearance, I believe the eruption is always perfectly

perfectly harmless, if not repelled by cold, or improper treatment; and will dry away in three or four days: nothing more being necessary than the little remedies, directed for the former; and to keep the child within doors, if the weather be cold.

An eruption of an appearance equally uncommon and analogous to the above, I have met with only in children of at least three or four years of age, and such as have also been affected with slight symptoms of scrofula; though I have not seen it frequently enough to ascertain its being, in any degree, owing to that specific virus. It breaks out suddenly, covering at once the greater part of the body, but occasioning neither pain nor itching, nor are children sick at the stomach nor otherwise ill with it, though it lasts for two or three weeks.

This eruption; therefore, like some others, is taken notice of chiefly for its singular appearance, which, though somewhat like the nettle-rash, is of a different figure, but may be pretty exactly conceived of by the little red lumps sometimes left by small-pox, after they are turned, and also rubbed; or picked off; especially after the crystalline or warty species, and where the pustules have been pretty numerous.

If the first-passages are at all disturbed, my attention is principally directed to them, otherwise to the state of the skin; and in

this case, I have usually directed small doses of Dr James's powder, to be taken for a few nights at going to bed, and the polychrest salt and rhubarb, occasionally, in the course of the day, with or without the addition of a little of the acitated water of ammonia.

In the course of a few days the eruption puts on a darker colour, is less prominent, and begins to scale off in a branny scurf, somewhat like the measles: but should no such change take place, the vinum antimonii should be taken two or three times a day; to which, if no amendment should soon be perceived, a few drops of the tinctura cantharidis may be added; a remedy often very efficacious in disorders of the skin; but should be administered with caution.

Another rash, or rather eruption, takes place both in bowel complaints and in teething, and always appears to be beneficial. It consists of vesications or blisters of different sizes, resembling little scalds or burns, and continues for several days. They come out in different parts, but chiefly on the belly, ribs, and thighs; and contain a sharp lymph, which it may be prudent to let out by a puncture with a needle, especially from the larger ones. No medicine is necessary but such as the particular state of the bowels may call for, which usually abound with

with acidity whenever there is much eruption on the skin.

An eruption, vulgarly termed scorbutic, infesting the face and neck, and discharging a sharp ichor that excoriates wherever it runs, and difficult of cure by chemical alternatives, will often yield in a very short time to the expressed juice of the *sium aquaticum*. From one, to four or five table spoonfuls may be given, mixed with one or more spoonful of new milk, three times a day, according to the child's age, and the state of its stomach; taking care at the same time, to keep the bowels open by senna-tea or other common laxative.

I shall close this account with a description of an eruption that is singular enough, resembling very much the herpes or broad-ring worm, or the adust-coloured spots left on the face after an attack of St. Anthony's fire. I have seen it in various parts, but I think only on such as are more or less liable to be fretted by some part of the infant's dress, especially on the nates and contiguous parts covered by the cloths, where the blotches are always the broadest and most rank. Were it to appear no where else, it would seem to be occasioned by some sharpness of the urine and stools, as the skin has a very heated appearance, though the eruption, I believe, is not at all painful. It frequently breaks out before the period of teething,

teething, but the bowels are generally somewhat disordered, and the stools voided very green, or else become so very soon afterwards. This I take to be one of those eruptions occasioned by some bad quality of the breast-milk as I have never met with it but in young infants whose nurse's milk has been old, and has also contracted a very disagreeable taste. If that should not be the case, the rash will probably require nothing but the light absorbent medicines before mentioned, and to guard against constipation. But if these means should not succeed in a short time, the nurse ought to be changed.

In all the eruptive complaints of infants, taking cold ought to be carefully avoided, and great caution be used in regard to all external applications, as well as keeping the belly open. If the child is sick at the stomach, a little magnesia, testaceous powders, or the compound powder of contrayerva joined with them, may be given now and then; or should the rash be hastily struck in, and the child be ill, it should be immediately put into a warm-bath and afterwards take five or six grains of the aromatic confection, with, or without a few drops of the wine of antimony, in simple mint water.

Should any scabs become very dry and hard, which the *crusta lactea* will sometimes be, especially when they extend to the crown:

crown of the head, and seem to give pain, they may be touched with a little cream, or with oil of almonds mixed with a few drops of the water of kali ; but not a large surface at a time. Or should they be very moist, and cause pain by sticking to the cap, they may be dusted with a little common powder, or with flowers of sulphur, and covered with a singed rag, but I should be very cautious of doing much more ; as the suppression of any considerable eruption on the skin may occasion the worst effects especially during the time of teething.

SORE EARS.

SLIGHT blisters and ulcerations behind the ears of infants are so very common, that almost every parent is well acquainted with them, and in general require only to be washed with cold water, or covered with a singed rag, to keep the cap from sticking to them, and thereby giving the child pain. They are, moreover, often very useful, especially during bowel complaints, or the eruption of the teeth. But there is in some children of a gross habit of body, and especially about the time of teething, a species of ulcer that often requires attention, on account of its extending low down in the neck, occasioning great pain, and spreading into

into large and deep sores, insomuch that a mortification has sometimes come on, and even the *processus mastoideus* has become carious. Here fomentations will be necessary, especially those of bark, and its powder should be administered internally. Such cases, however, do not often occur; but whenever the sores are large the cure should be begun by a blister on the back, in order to draw off the heated serum that flows to the parts. I have usually given an opening powder of testecea and rhubarb, with a little nutmeg, and sometimes nitre, to which is added either calomel, cinnabar of antimony, or *hydrargyrus cum sulphure*; the latter of which, I think I have found more serviceable in some eruptive complaints in young children, than seem to be generally imagined. But above all, some mercurial should be made use of to the sores, which, though they are often apparently inflamed, never offends them. A very clean and elegant preparation of this kind is the following,

R. Calomelan. 3j. ad 5ij.
Ung. Sambuci 3j m. st. Linimentum.

A little of this liniment spread on each side of a piece of doubled linen cloth, and applied twice a day, will do more than all the fomentations, or healing ointments, that I have ever seen used; and indeed has always succeeded with me, though I have been told

told the sores had spread deeper from day to day under various other applications. From such treatment I have never found the least ill effects, but children have preserved their health as well as if the sores had kept open, which, when benign, are certainly designed by nature as a preservative from some other complaints, especially those of the stomach and bowels, of which I now proceed to take notice.

VOMITING.

VOMITING is certainly not a common complaint of infants, I mean when considered as a *disease*, unless it be attendant upon some other, of which it is then rather a symptom, or the consequence of such disease improperly treated. Neither are infants in health disposed to vomit frequently, unless the stomach is overloaded, the milk is then usually ejected as soon as it is taken, and comes up unchanged. Nor is this to be considered as a disease, or as calling for the discipline recommended by some writers. Wherefore should the residue of the aliment be forced off the stomach by an emetic, when it has already parted with all the oppressive abundance? This kind of puking is not attended with any violence to the stomach: the milk, or other food seems to come

come up without an sensible action of the stomach, or the child being sick. Nay, it is at once so common to some of the finest children, that it is a saying with some old nurses, (though I am not very partial to many of their proverbs) that a puking child is a thriving child ; and when such ejection comes only soon after sucking or feeding, and the aliment is cast up, scarcely changed, matter of fact verifies the observation.* But if the food remains some time on the stomach, it will then be thrown up in a curdled state, which is an indication to attend to it, if it happens frequently. Not that the milk ought not to curdle on the stomach, which it always must do, in order to a due separation of its component parts, and is the chief, if not the only digestion, it undergoes in the stomach. The whey and the rich oil are there separated from the curd and earthy particles, the former being taken up by the lacteal, or milky-vessels in the bowels, † is converted into blood ; whilst the bulk of the latter is carried down and expelled with the other excrementious parts of the food, and gastic

* See PRIMEROS : *De Morbis Infant.*

† It is not intended in this place to speak with physiological accuracy, but merely to afford common readers some idea of the nature of the first digestion; in the second, indeed, it is probable, that some portion

tric juices, for which nature has no use. This curdling of the milk, therefore, is the natural course of digestion, though many writers have not been sufficiently attentive to it, and Harris has asserted it is owing to a predominant acid. But when the milk comes up in a curdled state, it proves that the stomach having digested what it had received, hath not power to push it forward into the bowels, and therefore throws up a part of it. * If this be the case, the stomach may perhaps require to be emptied of its whole contents, which may be easily done by giving a little warm water, or camomile tea. The cause of the indigestion was an accidental repletion ; that removed, together with the consequent foulness, or bad juices of the stomach, the effect also will generally cease, and unless the vomiting returns, from any farther injury the repletion may have occasioned, it requires nothing more. To

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distress

tion of every constituent part of our food may be farther prepared to become nutritious ; the thinner serving to renew the finer parts of our system, and the grosser, such as the earthy particles, &c. more adapted to the renovation of the muscles, tendons, bones, &c. may be deposited in these parts.

* I have known a child throw up a piece of curd full as large as the thumb of a grown person, and as firm as a piece of dough ; and be perfectly well the next minute.—When infants, not over-fed, throw up the milk uncurdled, after it has been sometime in the stomach, it is always a worse sign.

distress the child, on every such occasion, with a sickening emetic, or drench it with rhubarb and magnesia, is as needless as it would be to awake a patient out of a sound sleep to give him an opiate. Only let the child fast a little after having emptied the stomach of its load, and the nurse be careful not to overfill it for the future, and it will rarely want any other assistance.

If the vomiting, on the other hand, has arisen from acrid diet, a little farther discipline may be requisite, because some half-digested food has got into the bowels, perhaps for several days together. In this case, a gentle laxative, and change of food for one of a milder kind, is all that is generally necessary; or if there be a prevailing acidity in the stomach, either the testaceous powders, or magnesia, (according to the state of the bowels) may be mixed with the food, or be otherwise administered for two or three days, as the occasion may require. Or a drop or two of the water of kali, or a little *castile*, or almond soap, are excellent remedies, especially when the stools are unusually green, or clayey; not only as they will tend to promote a secretion of the gall, but correct acidity.* For which purpose also,

* It is well known, how small a quantity of soap put into a churn will prevent a due separation of the component parts of the milk, so as to allow very little,

also, myrrhe, though an obsolete, seems to be an excellent remedy, when infants are a few months old. Should the vomiting be a symptom attending some other disease, its remedy will turn on the proper treatment of its cause. If such cause be the sudden disappearance of some eruption on the skin, the child may be put into a tepid bath, the limbs be well rubbed as soon as it is taken out of the water, and the infant be then put to bed : and if the vomiting continues, an emetic should be given, and afterwards a blister applied to the pit of the stomach.

Having mentioned emetics, I shall take this occasion to observe, that the choice of them will be always best determined by the nature of the complaints for which they are administered. In those of the first-passages, ipecacuanha is generally the best, but if a fever should attend, or it be wished to promote a gentle perspiration, those of antimony are preferable ; or lastly, in disorders of the breast, the oxymel, conserve, or tincture of squills.

But a more troublesome vomiting will sometimes arise in unhealthy children, from too great a sensibility, or too great an irritability of the nerves of the stomach. Such

tle, or no butter to be made ; whereas, a little vinegar effects the separation almost instantaneously, and saves a vast deal of trouble.

medicines are then indicated as will brace, or strengthen that organ, and abate its sensibility. For the former, a cold infusion of the bark, or of camomile flowers, with orange peel, and sometimes a little rhubarb. For the latter, a saline mixture with a drop or two of laudanum. And the benefit of these may be increased by aromatic and spirituous fomentations to the pit of the stomach, or by the labdanum plaster, with a little theriaca added to it.

G R I P E S.

THE Gripes is a very common term amongst nurses, and some writers on children's diseases have treated of it under a distinct head ; but this serves to perplex matters, instead of explaining them. If a child be not hungry, or hurt by some parts of its dress, there are always symptoms attending, that will account for its crying, and other expressions of pain. The cause is, indeed, very commonly in its bowels, and may be increased by costiveness, which has already been treated of, but more commonly manifests itself by a purging, which comes next in order to be considered.

PURGING.

UNDER the article of vomiting it was observed, that frequent puking is oftentimes an attendant upon some other complaint, and then demands a peculiar attention, and is to be treated agreeably to the nature of such complaints; and there is, perhaps, none which it more frequently accompanies than a Diarrhœa, or Purging..

Vomiting and Purging very often arise from unwholesome milk or other food, from a moist cold air, or from the sudden disappearance of some eruption on the skin. The purging is not then hastily to be stopped, nor even absorbent powders to be given, till the offensive matter be first carried off; and if a vomiting attend, the cure should begin by administering an emetic. But though the purging ought not to be checked without previous evacuations, nor to be stopped hastily, yet it is not to be treated with a daily exhibition of rhubarb, which though a common practice with many, serves to keep up a purging after the cause has been removed, by creating a continual irritation in the bowels. The *diarrhœa*, indeed, is a complaint often as difficult to treat as any in the infant state, and is therefore worthy of particular attention. In a general way it may

be said, that a sufficient dose or two of rhubarb should be administered in the beginning, and afterwards absorbents. If the purging should still continue, an emetic will be necessary, as purges do not always lie long enough in the stomach to carry off the offensive matter it contains. After this, it is often necessary, the child should be purged again, for it should be always remembered, that many complaints of infants, whether seated only in the first-passages, or attended with fever, will frequently seem to be giving way upon procuring stools freely, but will soon return if the same means be not repeated, till the whole irritating matter be carried down. Should such repetition fail of success, though the diet has been carefully attended to, the use of them at present should be laid aside, and recourse should again be had to absorbents, and if there be no fever, to light cordials, and even to opiates, without the latter of which, many bowel complaints will not admit of a lasting cure, owing to the great irritability of infants.. Such medicines are not indeed very often required till children are some months old : but when they are found necessary, not only may syrup of white poppies, but even laudanum be given with the most perfect safety ; * though.

* From the half of a drop, to two, or three drops, in the course of the day, will be a proper quantity for infants from a week old, to the age of six months.

though from the time of *Galen*, (who cautions against giving theriaca to children) till of later years, many physicians have been fearful of directing them, (arguing from their abuse against their use) and especially *Harris*, who in other respects, has written so well on their diseases. I remember being called to see an infant of only two days old, who, through a mistake, had taken some hours before, four drops of laudanum. The parents were greatly alarmed at the child's lying in a stupid, drowsy state, without being able to take the breast or open its eyes. I encouraged them, however, to believe the laudanum would do no kind of harm, if they would frequently get a little breast-milk down with a tea-spoon. Accordingly, though the child lay sleeping above six and thirty hours, it afterwards awoke perfectly well.— This is mentioned, however, only by way of encouragement to such as may be fearful of administering opiates even where they are necessary. They are, nevertheless, very powerful medicines, and should be prescribed with due caution for patients of every age, and especially for infants. A like caution may be necessary in regard to cordials, which are, nevertheless, in many cases equally proper, notwithstanding a modern prejudice against them. There is a certain coldness and languor in infants when they are ill; especially under some bowel complaints;

and

and whenever they may be in that state, that class of medicines will have a very happy effect.

Purging in children, it is to be observed, is not always a disease. The bowels are the great natural, and critical outlet in infants, as the pores of the skin, and the kidneys are in adults. Not the mere discharge, therefore, but the cause of it is, in the first instance, to be removed, and the ill effects are to be guarded against by keeping the purging within bounds. For this purpose, the chalk julep, as it is an astringent only by absorbing the acrid, or changing the acid, and irritating matter, is as safe as it is useful, becomes an excellent anodyne, or composing medicine, and after the bowels have been well cleased, will usually accomplish the cure.

Dr. Armstrong takes occasion to speak against the use of absorbent powders, and prefers wine of antimony, because modern writers appear to depend so much on the former, from their known property of correcting acidity, previous to the exhibition of purges ; and says, that in cases of extreme danger, a physician who is called in late, would, according to this practice, often find no opportunity for purging at all. But surely this is scarcely an argument to prove the superiority of his method, since no writer that I know of, ever designed it as a rule without

without exception ; and *Harris*, who has said as much as any man in commendation of the absorbent powders, does not deny the expediency of sometimes beginning with purgative medicines. But had it been otherwise, the argument goes no farther than to prove, that in cases of great danger, the wine of antimony, being both an emetic and a purge, ought to precede the use of the testaceous powders. Instead of this, Dr *Armstrong* slides into a general conclusion from premises evidently limited ; though he has advanced nothing against an established, and successful method of treatment. And I may add, that whilst he is fearful, that the absorbent powders, (which nobody prescribes without some purging medicines) should check the looseness, and thereby increase the fever ; he ventures, after a repetition of the antimony, to administer what he calls a gentle paregoric, or opiate, to appease the pain, consisting of a dram of syrup of white poppies, repeated every three or four hours, till that end be obtained. So that if the pain should continue for nine hours, a child will take half an ounce of the syrup ; and this Dr. *Armstrong* observes is the only medicine he gives, except wine of antimony, which (notwithstanding the opiate) he supposes to be the efficient remedy.

It is an improper exhibition of absorbents, I apprehend, rather than their dose,
that

that has made some practitioners so averse to them ; for they certainly ought, in many cases, to be given in large quantities : but if administered too early, and long continued, the stools may become like plaster of *Paris*, and be with difficulty excreted. Such an instance is mentioned by Boerhaave, who had, nevertheless, a very favorable opinion of them, as will be noticed hereafter. There is, however, some fallacy in regard to the colour of the stools, as this kind is frequently observed in children who have never taken any of the testacea, if the secretion of the bile be obstructed ; as in jaundiced adults.

In his second edition, Dr. Armstrong mentions another method he has fallen upon for curing this disorder, which, however, appears to be recurring to the ancient method of treating bowel complaints, and seems, indeed, to overturn the idea he had entertained of the superiority of wine of antimony over every other medicine. This method, he tells us, is by cleansing the bowels, by means of proper purgatives, joined with anodynes, or opiates, intermixed in such a manner as to correct the griping quality of the medicines, and lessen the stimulus occasioned by the acrimony of the stools.—A plan worthy of imitation, it is apprehended, and though not likely to be

be proper in all cases, must, as an occasional practice, be safe and beneficial.

To return, it is of some consequence to learn what part of the bowels is particularly affected, and the degree of pain children may endure ; and some indication may be had from undressing the child, and carefully examining the belly, and gently pressing in different parts, as well as from the different expressions of pain the infant may manifest, either by a forcible contraction of one or both legs, or of the arms, according as the irritating matter may be higher or lower, or on one, or both sides of the belly ; also from the coldness of the feet. Regard is also to be paid to the kind of stools that come away, which in a diarrhoea are seldom good, and are usually distinguished into the sour and curdled, slimy, green, clayey, watery, and bloody, some of which are at times also fetid ; and in this case, some powerful purgative, such as senna-tea, is oftentimes necessary, if the child is not very young. True bloody stools, however, are less common in infants than adults, and seldom occur but in the last stage of the disease ; but a few streaks of blood may sometimes be mixed with the faeces, which arising only from the *hemorrhoidal* veins, is of no consequence. Should purgings return frequently, it will be very useful, (especially in the time of teething,

or upon the striking in of some cutaneoua eruption), to procure a little discharge be hind the ears, or to apply a burgundy-pitch plaister to the back. For the former purpose, some finely pounded *Spaniſh* flies may be rubbed on the part, till a slight excoria-
tion, or rawness, is produced ; or perhaps a better, though not a common method, is to draw a piece of course doubled worsted, or a bit of narrow tape, through a piece of common blistering-plaister, and lay it close behind the ears where they rise from the head, and repeating it occasionally, which will produce a discharge exactly from the spot where it is wont naturally to arise.

When the stools appear sour or curdled, or the child is much disposed to hiccough, the magnesia, and other absorbent powders are calculated to afford peculiar assistance, and may be warmed by the addition of a little grated nutmeg. When the stools are green, or white and clayey, a drop or two of water of kali may be occasionally put in-
to the other medicines, or a little soap be dissolved in the clysters, which are essenti-
ally necessary when much griping attends this complaint : the child's belly may like-
wise be rubbed with a little warm brandy. The following preparation is highly extoll-
ed by Boerhaave,* as an almost universal
medicine

* *Epist. Ima.*—ad. J. B. BASSAND : a physician at Vienna.

medicine in the diseases of infants ; and is certainly a good remedy, especially in their bowel complaints :

Take of *Venice soap* two drams ; prepared pearls, one dram ; prepared crabs claws, one dram and an half ; syrup of marshmallows, half an ounce ; mint-water and fennel-water, of each three ounces ; mix them.— A desert spoonful is directed to be taken once in eight hours.

When purgings have continued a long time without any amendment, a peculiar tightness of the skin will sometimes take place in the last stage of the disease, affording always an unfavourable prognostic ; and of which farther notice will be taken under the article of *Skin-bound*.

The true *Watery-gripes*, so cal'd, is esteemed the most dangerous of all purgings, and is usually thought fatal, though perhaps without reason ; since if properly treated, children recover from it as well as from excessive purgings of any other kind, unless it happen after some other illness, or to very small and tender infants during the month. It is not the having a few very thin stools; however, that is an evidence of the true watery-gripes, for in almost every purging of a few days continuance, the stools are very thin as well as numerous. But in this case, they are thin very early in the disease; the child looks wretchedly, and every thing

it takes runs almost immediately through it, with very little change, as in the *lientery* of adults.

The cure should be begun by administering one or more pukes, especially when the stools are of a dark colour and fetid, as they frequently are in the earlier periods of the complaint. And to this end, a pretty strong one should be prepared, which should be given in divided doses, at about a quarter of an hour's distance, till a proper effect is produced ; and some hours afterwards a warm purge with rhubarb should be administered, if the disease be not very far advanced. After the first passages have been cleared, the eighth part of a grain, or less, of ipecacuanha, or a drop or two of wine of antimony, given every three or four hours, with a few grains of the testaceous powders, or the aromatic confection, appear to me amongst the best remedies in the earlier periods of the complaint. Indeed, very small doses of ipecacuanha, especially if duly guarded by some gentle aromatic, is both so useful and safe a remedy, that it should not be hastily laid aside, and when persevered in the use of for some time, will effect wonders, not only in long purgings, but in other chronical complaints.

In the more advanced stages of the watery-gripes, and where the child is not very young, the following old medicine is a very

ry good one—Of *Locatelli's* balsam, one ounce, and conserve of red roses, two ounces: from the quantity of an horse-bean to that of nutmeg, may be given three or four times a day, according to the age of the child.—The laudanum plaster likewise, as directed for vomitings, or the following, may be applied to the parts above the navel: Take of Venice treacle, one ounce; expressed oil of mace, two drams; and oil of nutmegs, three drops; mix them into a plaster, to be spread on a piece of soft leather.

Should these means fail, I have known the repetition of a vomit give an immediate check to the complaint, especially where the stools continue to be remarkably sour. So long as this is the case, it would be both vain and hazardous to exhibit opiates, or powerful restringents: the acidity must be first carried off by warm purges, and be corrected by absorbents; the latter of which must be given in large, and repeated doses, and frequently their powers be augmented by the addition of water of kali, or tincture of myrrhe. And an excellent remedy sometimes, as an antiacid, is the *spir. salis ammon. succinat.* of *Bate's* dispensatory. The acidity once removed, a starch clyster may be thrown up, two or three times a day, with or without a few drops of laudanum, according to the number of the stools, and

weakness of the infant. A drop or two of laudanum may now likewise be given, once or more in the day, (according to the age of the child) either joined with some purgative, or in any of the afore-mentioned medicines, or in the chalk-julep, made warm with tincture of cinnamon, or of cardamoms; and in cases of extremity, in the decoction of log-wood, which agrees very well with young children.

If infants ill of watery-gripes, are brought up by hand, the strictest attention must be paid to their food, which must be changed from one kind to another, and especially trial be made of broths, (and to older children white meats) as long as the food shall be disposed to turn very acid on the stomach. In one case, I think I saved a child, by *Bates's julepum vitae*, lowered with water, when nothing else would stay on the stomach. This served both for food and medicine; for the former of which, it was still farther diluted. When the watery-gripes, or indeed any violent purging, attacks young children at the breast, no other food ought to be given, but the wet nurse be changed, if the acidity and purging continue many days, and medicine does not seem to take a proper effect; which it cannot, if any offensive matter be continually thrown into the stomach.

It has already been hinted, that when there is no fever, purging medicines for children ought to be made potentially warm, and in no case is it more necessary, than in long continued complaints of the bowels, which are so apt to give rise to spasmodic affections. I am not very fond of giving prescriptions, but it may not here be altogether amiss for some readers, since the following, considered as a general medicine, has been found so frequently useful, and will keep for a great length of time.'

Take of rhubarb from fifteen to twenty grains; two scruples of magnesia alba; sweet fennel, and dill-waters, of each one ounce; half an ounce, or six drams of syrup of roses, and fifteen or twenty drops of the compound spirit of ammonia. Of this, one, two, or three tea-spoonsful may be given two or three times a day, and being very pleasant, infants are never averse to it.

Bowel complaints, it was said, are frequently owing to improper food, which on this account, should at all times be peculiarly attended to; and when a purging has taken place, ought to be suited to the nature of the stools. In the second part of this work, some farther notice will be taken of the article of children's food; at present, I shall only observe, that cow's milk is often found to disagree with them, when their bowels are disposed to be too open, at which

times, a little lean mutton broth, or beef-tea is abundantly preferable. On the same account, rusks, * and biscuit-powder are more suitable than bread; but at other times, I believe, either the common, or the *French* roll, which is already half digested by a previous fermentation, is more easily dissolved in the stomach, if there be not a predominant acid in the first-passages. But where there is an habitual disposition to a purging, I know of no diet so proper for infants who do not suck, or who cannot have enough of the breast, as flour baked a long time in the oven, till it breaks into a soft, greyish-coloured powder, † and afterwards mixed with boiled cow's milk, the scum being first taken off; the flour and milk should then be boiled a little time together, till the whole appears like a thin custard. This is a very light and soft food, and sufficiently restringent; and I have often known more good from it, than from all the absorbent medicines ever devised, and have received more thanks for the prescription, as it proves a permanent remedy. When children who

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* These are preferable to tops and bottoms, as they are called, which have a good deal of butter in them.

† To this end, the flour should be put into a small jar, properly covered, and be taken out of the oven several times, and stirred up from the bottom and sides of the jar, that it may not form into hard lumps, but the whole be equally baked.

are weaned, are attacked with repeated purgings, and even broth is found to run through them, I have observed no food so generally useful as a bit of the white of chicken, not over-boiled, and afterwards lightly bruised in a mortar with the chicken liquor, and a very little bread, into a kind of light jelly. But this should not be given oftener than twice, or at most, three times a day.

In all bowel complaints, it has been already remarked, that infants are disposed to eruptions on the skin; by which they are so frequently benefited, that if any kind of rash appears during long or severe purgings, a recovery may almost with certainty be prognosticated.

That I may not multiply distinct heads of complaint where little need to be said, I shall briefly notice in this place, that many children who are accustomed at all times to have a very open belly, do not seem to have the faculty of properly retaining their stools, and need a servant continually to attend them, even at two or three years of age; so that some have been suspected of being culpable in the matter. I know of no particular remedy, indeed, on this occasion, but, perhaps, the *aqua calcis*, and other absorbents may have been of some use; I have, however, observed, that the complaint

plaint wears off as such children grow up, though oftentimes not entirely for several years.

WORMS.

THIS being a bowel complaint, I have noticed it in this place, especially as worms have sometimes been voided by infants of only a few weeks old. It is even reported,* that Lille Van Deoverin has discovered them in the still-born fetus. Worms, however, are much oftener suspected to be the cause of children's complaints than positively ascertained ; a mere foulness of the bowels often producing all the evils attributed to worms : nor are all children equally affected by them where they are actually met with. Some infants continue very healthy, though they are seldom free from them, whilst others are very ill who have apparently very few.

Worms become hurtful chiefly from their numbers ; first, when they obstruct the bowels, or compress the adjacent parts by their bulk. Secondly, by sucking up the chyle designed for the nourishment of the child. Thirdly, by irritation. Fourthly, by actually destroying the parts ; though this is certainly a very rare occurrence, and

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* *Philosoph. Transact.*

a far less frequent source of injury than those beforementioned. Worms have, however, been said to eat their way through the intestines ; and Lister relates,* that some resembling the *Teretes*, but of a whiter colour, have been seen coming from an abscess on the ankle. They are likewise said to have occasioned sudden suffocation, by rising up into the throat and lodging there.†

They are chiefly of four kinds, the large round worm ; the very small maw-worm, or ascarides, resembling bits of thread ; the short, flat white worm, or *cucurbitina*, and the jointed, called the tape-worm, or *tinæa*, which is often many yards long. This is the most hurtful of all, and most difficult of cure, because it will remain long in the bowels even after it is dead, and is then seldom brought away but in pieces, and that by very powerful medicines. But as this kind of worm is certainly not common in children, tho' it may sometimes have been met with, and as it generally occasions a variety of symptoms resembling other complaints, for which many different medicines may be required, the bare mention of it here may suffice. †

The

* Philosoph. Trans. See also *Heister*.

† Mr. Le Febure de Villebrune.

‡ This is so generally solitary, that it has even acquired the name ; yet it is said, there are sometimes

The Symptoms of worms are various, and many of them are very equivocal : I shall name only the more constant, and lets uncertain ones. Such are fetid breath, especially in the morning ; bad gums ; itching of the nose, and of the anus, especially from the *ascarides* ; a very irregular appetite, always in extremes, whether of hunger or of loathing ; a large, hard belly ; pains at the stomach ; sometimes vomiting, oftener costiveness or purging, with slimy stools ; irregular colicks ; thirst ; dulness ; peculiar unhealthy and bloated countenance, with a dark, hollow circle round the eyes ; startings in the sleep, and grinding of the teeth. To these symptoms are often added, slow fever, with a small and irregular pulse, pale, or whitish urine, a short and dry cough, (which is an almost constant symptom where the complaint is of long standing, and has injured the health;) sometimes even convulsions, epilepsies, and partial palsies of the lower extremities. Children, whose digestion is weak, are most liable to be troubled with these vermin, which are sometimes very easily removed, and at other times very difficult of cure, and subject to return.

The

times several of them, but, perhaps, attention enough may not have been given in the examination of them, it being well known, that this worm will live a long time after it has been broken into several parts.

The Cause of this troublesome complaint is not perhaps certainly known ; but the great moisture of young persons is thought to be an occasion of their being more infested with them than older people. Since the doctrine of equivocal generation has been justly exploded, it has been generally imagined, that worms are engendered from the eggs of insects, which float in the air, or are swallowed with some part of our food, such as summer fruits, vegetables, cheese, and some kinds of flesh meats. But perhaps this is not altogether so certain as it may appear at first sight, unless we are to imagine that these supposed eggs produce very different insects, from being taken into the stomach and bowels, than they would otherwise do ; since we do not meet with insects of this kind, especially the tape-worm, anywhere else.* It is, however, more than probable, that they were destined by nature to be generated, and to live in the bodies of other animals, as observed by Dr. Black.†

The

* Linnæus and others have thought the Teretes, or Lubrici, to be the same with the common earth-worm ; but Tyson has, by dissections, demonstrated the contrary. *Philosoph. Transactions.*

† *Treatise on the Generation of intestinal Worms, and on the Means of destroying them.*

See also, *Dissert. of J. Mathieu Gesner, Mem. Gotting, an. 1751.*

The like, however, are said to be met with in running waters, as well as the bodies of different animals. But as the fact is not generally known, it were desirable to have it established on the authority of several writers : I happen to remember none, indeed, but that of Roseen, whose veracity, however, I do not, in the least dispute.

But whatever be the cause, the general intention of Cure is obvious enough, which is to bring them away in the most easy, and expeditious manner, whether alive or dead ; the difficulty chiefly consisting in dislodging them from their firm attachment to the sides of the bowels. To this end, a variety of medicines, pretty much of the same kind, has been devised, and has served the cause of empiricism in every age. Most of them consist either of the bitter purges, or mercurials, to which are sometimes joined steel, and tin.

Worms existing in the bowels can, indeed, only be carried away by purging ; and very active purges are indicated when the time of life and constitution do not forbid : on this principle, turn almost all the empirical medicines prescribed for worms. But when the age and constitution are tender, gentle purges given duly for some time, by the constancy of their operation produce, without harm, an effect equally, or perhaps more beneficial and lasting, than the active

active purges : hence have arisen the family receipts, as worm-feed, ransey, and such like, (given in treacle or honey) rhubarb, senna, &c.

If the child therefore be of a delicate habit, or the complaint not of long standing, a little senna-tea taken every other morning, may be a proper medicine to begin with ; but should this, in any instance, prove insufficient, a few grains of the powder of scammony with calomel may be given the overnight, once or twice a week, according to the age and strength of the child. If purging much should, on any account, be found improper, the following is very safe, and often effectual.

R. Limatur: Stanni ȝij. Hydrargyr : ȝij.
Misce, finant amalgama.

About eight or ten grains of this powder, with three or four grains of rhubarb, and as much unwashed calx of antimony, may be taken every morning, in a little honey, for a week together ; after which, a clyster of succotorine aloes, dissolved in warm milk, should be thrown up over night, and a proper dose of rhubarb, or senna-tea be taken the next morning : which course may be repeated, as the obstinacy of the complaint, or the strength of the child shall direct.—Volatile alkalies also, in some debilitated habits, will prove serviceable.

Amongst other means, especially for such as may be at a distance from medical assistance, is a mixture of pewter filings and treacle, of which children of four or five years old, may take several tea-spoonfuls in a day, almost at pleasure ; which they will also readily do, for the sake of the treacle. At the same time, from five to ten grains of jalap, with as much of the *hydrargyrus cum sulphure* should be given twice every week, to carry the worms down, as they die. To answer the last purpose, equal parts of bullock's gall, and powdered aloes, may be mixed up with butter, and the parts below the navel be anointed with it, two or three times a week ; or succotorine aloes and powder of dried rue, made into a plaister with Venice treacle, and applied round the navel, first covering that part with a little cotton.

—I mention these things with a view to the country poor, whom the benevolence of their neighbours may incline them to assist, and who may, by these easy means, do it at so little expence to themselves. Amongst such likewise, the decoction of quicksilver, in the proportion of about two ounces to a pint of water, may be made trial of, and taken as a common drink, of which some people have entertained a very high opinion. When this shall be drank, the like quantity of water may be added, as often as it may be wanted.

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If the complaint, however, has been of long standing, and the child not very young, mercurial purges are a more expeditious, and a safe remedy ; though the *hydrargyrus cum sulphure* taken for a length of time, and occasionally purging with senna, has sometimes succeeded, even where there have been the severest convulsions. For which likewise, or obstinate contractions of the limbs, the warm-bath is often essentially necessary.

Throughout the cure, and indeed afterwards, the diet should be strictly attended to, and all fat and greasy aliments abstained from. The child should live upon milk, broths, and meats of easy digestion, with toasted bread and honey, instead of butter, which is exceedingly pernicious.—To prevent a return of the complaint in older children, or grown people, chalybeate-waters and bitters may be made use of.

CONVULSIONS.

CONVULSIONS are of two kinds ; the *symptomatic*, depending upon another disease, and the *idiopathic*, said to be an original complaint, and arising from a morbid affection of the brain, though the distinction be not, perhaps, perfectly philosophical, or accurate. It is for want of some such discrimination, however, that writers have had occasion to observe, that children

are much oftener supposed to die of convulsions than they really do ; for though a convulsion frequently closes the scene, it has generally arisen from the great irritability of their nerves, and violence of the disease under which they have laboured.

Such original Cause may be a rash improperly repelled ; but is much oftener seated in the gums, in the time of teething ; or in the first-passages, where some undigested matter, or sometimes pent-up wind, irritates the coats of the intestines, and produces irregular motions throughout the whole nervous system. Such a load, whether from too great a quantity, or bad quality of the food, by occasioning a faulty secretion, must act like a poison ; and that the convulsions are owing to this cause may often be known by the complaints that have preceded them, such as loathings, costiveness, purging, pale countenance, large belly, and disturbed sleep. If the child is two or three years old, any load at the stomach may be more readily discovered ; the tongue will be foul, the skin hot, and the pulse quick and weak. But should it be granted, that the convulsions of children are generally symptomatic, they may nevertheless be said to die of them more frequently than some authors have allowed ; for where a disease is disposed to produce violent convulsions, the convulsion, though a mere symptom, may carry off the patient :

patient : but as it may sometimes be prevented or removed, by its peculiar remedies, (the disease which occasioned it being at the same time properly treated) infants may often be recovered, who would otherwise expire in a convulsion fit.

Any little matter capable of irritating the nervous system, will induce the symptomatic convulsions in some infants, whilst others will withstand a great deal. For such habits as the former, the cold bath will be found the best preservative. Every young infant is, however, more or less, predisposed to this complaint ; and the disposition continues throughout childhood, in a proportion to the age and delicacy of the habit. The younger and more irritable, therefore, an infant may be, it will be so much the more liable to the symptomatic convulsion, especially from any considerable disturbance in the first passages, as was mentioned before, particularly the bad quality, or over thickness of the breast-milk, or other food ; and from frights of the wet nurse. Of this I remember a remarkable instance in a patient of my own, in whose house a visiter dropped down suddenly dead. The mother of the child, which was six months old, was exceedingly alarmed, but her attention being for a moment called off by its crying, she incautiously put it to her breast. It was not an hour afterwards that the in-

fant was seized with a fit, and lay either convulsed or drowsy, without so much as taking the breast, for the space of six and thirty hours ; though it was at length happily recovered.

The cure of every convulsion will consist, principally, in removing the exciting causes, which must, therefore, be inquired into. If from improper food and indigestion, a gentle emetic should be given. If the irritation be in the bowels, whatever will carry down their acrid contents will cure the convulsions, if administered in time ; and we ought generally to begin with a clyster. If the stools appear very foul after common purges, (in which case there will frequently be a difficulty of breathing) a few grains of the powder of scammony with calomel may be given with great propriety. But if the disposition to convulsions continues, after the bowels have been properly cleansed, and no new irritation of them may be apprehended, antispasmodics should be administered, * such as tincture of soot or of castor, spirit

* I speak from my own experience of the efficacy of such remedies, and it may not be amiss to observe that Harris, who is extremely cautious of giving heating medicines to infants, speaks favourably of some of these.—“ *Usus horum (says he) haud prorsus improbandus est, vel in tenellis : nempe quia acidum absorbendi facultate excellunt. Verum summae cautione*” &c.—Great caution is certainly necessary in regard

spirit of hartshorn, or drop or two of laudanum, or, what I have found remarkably successful, oil of rue; which though an obsolete medicine, I think I have never administered, when there was any chance of recovery, where it has not been serviceable. Rubbing the back bone, palms of the hands, and soles of feet with oil of amber, or water of ammonia, has likewise had a good effect. A very common cause, however, of recurring convulsions is worms, and where no other probable one may appear, ought to be suspected; the cure will then depend on the proper treatment of that complaint.

Should the convulsions arise from the disappearance of a rash, or of a discharge behind the ears, the warm-bath, blisters,* gentle purges, or a few drops of the compound spirit of ammonia joined with the salt

regard to every medicine prescribed for infants, and especially, it has been granted, for those of heating quality: nevertheless, it may be repeated, that in proportion as the disorders of infants shall become more attended to, I doubt not, it will appear that, in this country at least, cordial and volatile medicines, are frequently both more expedient and useful, than many people have imagined.

* Blisters may be dressed with the common white cerate, rubbed down till it becomes smooth, and spread upon a double linen cloth, instead of the hard drawing plaisters commonly made use of, which are very harsh to the tender excoriated surface.

salt of amber, bid the fairest for administering relief. But when the cause is unknown, as the approach of small pox, measles, or other eruptive complaint, bathing the feet in warm water, and throwing up a clyster, are the safest means. If from teething, after gentle evacuations, and other means directed under that head, blisters, oil of rue, laudanum, or the compound spirit of vitriolic æther, and especially lancing the gums, are the grand remedies.

When repeated convulsions connected with some disorder in the first passages, and recurring for several months have withstood all the above means of cure and been suspected to arise from some fault in the brain, they will sometimes disappear of themselves as the infant gets older. At other times, the appearance of some other complaint has put an end to the convulsions, and not unfrequently, changing the wet-nurse ; and sometimes even weaning children, when six or eight months old, has seemed to remove the complaint. I lately saw a remarkable instance of the concurrence of two of these circumstances ; the child being seized with the small-pox, and weaned, at, or near the same time. The infant previous to this, for several months together as constantly fell into violent convulsions as it chanced to chew a crust of bread, eat a bit of plain pudding, or even take bread and milk, and though

when

when debarred from these, and nourished only at the breast of a healthy nurse, the fits recurred every two or three weeks : but after going through the small-pox in a favourable manner, and being taken wholly from the breast, the fits soon disappeared, and the child was able to take all the light food usually given to infants.

If convulsions come on without any of the preceding symptoms, they have generally been concluded to be a primary disease, and to proceed immediately from the brain. Some derivation is therefore to be made, by bleeding, if the child seems able to bear it, or by leeches behind the ears ; by blisters ; purging ; bathing the feet in warm water ; frictions of the legs, and rubbing the soles of the feet with the water of ammonia. If children of two or three years old are subject to slight and frequent fits, issues or setons should be made between the shoulders, or in the neck, and be kept open for a length of time : chalybeate waters may likewise be useful. But when the *idiopathic* convulsion attacks very young children, it generally terminates very soon, sometimes in ten minutes, and is, indeed, often fatal before any means can be made use of. Though, indeed I have often imagined, that we are frequently mistaken in regard to such hasty deaths, and that when convulsions prove so suddenly fatal, they are commonly

commonly *symptomatic*, and are occasioned much oftener than is suspected by over-feeding.—I have known some of the largest and finest children I have ever seen, die presently after the nurse had boasted of their having eaten three boats-full of viands.

From this view of the disease, a few words more may not be wholly unnecessary, especially as they will hold out much comfort in regard to this alarming complaint; by which, I am however, assured, many infants have perished merely from its not being properly distinguished. For though, indeed, every convulsion fit is to appearance exceedingly shocking, yet under proper treatment they are much seldomer fatal than is commonly imagined, however often they may recur: neither is the frequency of their returns during infancy, nor the long continuance of such a disposition an indication of future evils, if the fits themselves be of the kind here supposed.* But though experience warrants my speaking with confidence on this head, and I should account myself exceedingly happy in preventing any unnecessary distress that parents may endure, yet would

* The above observation is, I believe, strictly true in regard to such kind of fits; and though in some others, the intellects have appeared afterwards to be impaired, yet are the instances so very few, that there is usually little room for parents to be alarmed in the apprehension of such consequences.

would I, by no means, put them off their guard ; since the recovery depends so entirely upon an expeditious use of the remedy, that even the time lost in calling in assistance from abroad may be fatal to the infant.

Fits of this kind are, indeed, pretty generally known to arise from irritating matter confined in the first passages, as has been already explained, but I believe it is not so generally understood, how often such matters are lodged in the stomach, (perhaps the *pylorus* itself) ; or very low down in the *rectum*. Instances of the latter are not wanting, wherein the hardened feces have lain so low as to dilate the *sphincter ani*, (or lower opening of the bowels) sufficiently to expose them to view, and yet the infant been dead before a clyster could be procured from a neighbouring apothecary's ; whereas such fits cease immediately after a plentiful evacuation from the bowels, artificially induced : and I have seen an infant in the month, lying torpid for an hour together, in a kind of fit, and apparently in the very article of death, brought out of it entirely after a large and spontaneous discharge of thick feces. In like manner sudden death has taken place when the load has been in the stomach ; whilst other children have been saved by spontaneously throwing it up.

After

After what has been said it would be scarcely necessary to point out the remedies in a formal way, but for the sake of directing the most expeditious manner of applying them. In the first instance, doubtless, the obvious means are a soap clyster with two or more tea-spoonsful of salt (such articles being always at hand) and afterwards administering one or other of the purges formerly directed; which it may often be necessary to repeat for some days, perhaps with an interval between. But when an infant falls suddenly into a convulsion very soon after sucking, or feeding, whether on any thing actually improper, or not, and the bowels have been for some days in an orderly state, it may reasonably be presumed, that the irritation is in the stomach, especially if there be an unusual paleness of the countenance, indicating sickness; or on the contrary, any considerable blackness, with symptoms of suffocation; which I think do not come on so soon when the obstruction is in the bowels. And it should here be remarked, that it is not necessary, that the load in the stomach should be considerable in quantity in order to induce such sudden and alarming convulsions; it is sufficient that the stomach be really oppressed by it to a certain degree; nor does it always appear to arise so much from an oppressive abundance, as from a small piece of undigested food,

food, irritating, and perhaps sticking in the *pylorus*, or inferior aperture of the stomach.

In the case here described it would be improper to think of a formal emetic, at least without making trial of some more expeditious means, such as irritating the *Pharynx*, or upper part of the gullet, with the finger, or a feather, or forcing in the smoke of tobacco, if that be at hand, which often instantly produce vomiting, and put an end to the fit. To this end, the child should be supported by a hand placed under its stomach and belly, whilst the feather or other means are made use of; in which posture the infant will be made to vomit more readily, and with less straining, than in any other position.—It is hoped that the importance of the subject, as well as the very frequent success attending the plans last recommended, under the most alarming appearances, may be thought an apology for the length of this chapter, as well as the sort of repetitions made use of.

It is farther to be noted, that symptomatic convulsions are sometimes the effect of a salutary effort of nature, to produce a crisis in some disease the child labours under; in which case, great caution should be used not to be over officious: bathing the feet in warm water, however, as mentioned before,

will be perfectly safe, and perhaps useful.— Having spoken of opiates, I shall just observe, that though they are often very serviceable, when judiciously prescribed, they become very hurtful if improperly administered. They will, however, always be safe, where convulsions continue after the first exciting cause has been removed; or where they are so violent as to become an obstacle to administering proper remedies; or when the originial complaint is of a spasmodic nature.

When convulsions occur many times in a day, it is of importance to attend to the distance of the paroxysms, or returns; from which a much better indication may be had of their immediate danger, than from the forcible contraction of the muscles during the fit. For where the intervals are short, though the fit itself be not long, nor violent, the disease is more dangerous, than where violent fits are attended with long intervals.

SKIN-BOUND.

IN the preceding edition, this disorder was considered only in a transient way, under the article of *Purging*; both from its being conceived to appear chiefly in the form of a morbid symptom attending certain bowel

bowel complaints, and because I had then neither seen, nor heard enough of the disease to enable me to offer to the public any very distinct account of it. I could indeed wish that this disorder were yet better understood, and that I were able to lay down a more successful method of treatment than has yet been made known : it is however in every view worthy of the most distinct consideration, as well from the observations made in this country, as from the late researches by several physicians in *Paris*, as I shall have occasion to notice very soon.

Having met with no account of this disorder either amongst the ancients, nor very modern writers when I mentioned it in a former edition, I presumed I was announcing a disease, at that time scarcely known, or at least was giving the first public account of it : and this I believe is no uncommon mistake of authors. Perhaps, it may be the wise intention of Providence, that in succeeding ages, many things relating to arts and sciences should be forgotten or overlooked, in order to emulate posterity in the pursuit of knowledge ; which men would, probably, be less inquisitive after, if things once known were very rarely lost sight of. However this may be, I continued to consult the oldest writers, after having published my former edition, and was once more led to conclude, that no account of this dis-

order had ever before been given to the public. At length, however, I met with a solitary case, which had occurred in the hospital at Stockholm, Anno 1718, accurately described by Uzenbesius, and recorded in *Scuringii Embrologia (de fætu frigido et rigido)*,* but without adverting at all to its treatment. The case, as I since find, is transcribed into the *Ephemerid. Academ. Naturæ Curiosor. Cent. ix.*

The above is related in a manner importing it to be an uncommon occurrence, and the disease at that time little, if at all known: and though recorded in two distinct works (the latter of which is rather consulted than regularly perused) the case seems to have been universally overlooked, and consequently the true nature of the disease has remained nearly in its original obscurity. It was, indeed, not till a twelve-month after my short account of it appeared, that this disorder began to engage the attention of the French physicians, in consequence of Monsieur Andry being called upon to take the charge of the *Hospice des Enfans trouvés* at Paris. The disease indeed had been for many years noticed both in that hospital and

* The midwife is reported to have said, that this infant though born alive, felt as intensely cold and rigid when it came into the world as a piece of ice.—How this might be, I leave to the Academy of the Curious to determine.

and the *hôtel Dieu*, but having always proved fatal, little attention had been for a long time paid to it, till Dr. Andry was elected physician to the first mentioned charity; since which time, no pains seem to have been spared in the investigation of it.

That the present account of the disease may therefore be clearly stated, I shall first consider it as it has appeared in this country, and in the manner I had long ago intended, and had actually drawn up before I was favoured with some farther description of it, by Dr. Andry, of Paris.

It has, indeed, been much less common in this kingdom than on the continent, but is equally an hospital disease, and is seldom met with but accompanied with some bowel complaint, and still more rarely appearing at the birth. It was first spoken of in public, I believe, by my friend Dr. Denman (when physician to the Middlesex hospital, and a teacher in midwifery); as I remarked in the former edition; and it is to him I was indebted for some account of it before I had at all noticed the disorder myself.

The *British Lying-in* hospital has been very little infested with it, and, possibly, by being solely appropriated to the reception of pregnant women, which the *Middlesex* hospital was not. I shall therefore first of all lay down the symptoms exactly as they were noticed in that infirmary, by

Dr. Denman, whose unwearied attention to it, though not with all the desired effect, does him more honour, than could have been derived from the most successful treatment of a disease less fatal than this has proved wherever it as appeared.

The following symptoms may be considered as pathognomonic, or characteristic of the disease.

1st. The skin is always of a yellowish white colour, giving the idea of soft wax.

2d. The feel of the skin and flesh is hard and resisting, but not edematous.

3d. The cellular membrane is fixed in such a manner, that the skin will not slide over the subjacent muscles; not even on the back of the hands, where it is usually very loose and pliable.

4th: This stricture often extends over the whole body; but the skin is peculiarly rigid in the parts about the face, and on the extremities.

5th. The child is always cold.

6th. The infant makes a peculiar kind of moaning noise, which is often very feeble; and never cries like other children.

7th. Whatever number of days such children may survive, they always have the appearance of being dying.

This disease appears at no regular periods; but whenever it takes place it attacks several infants within a short time; and chiefly.

chiefly those, as I have just noticed, who may be in the last stage of obstinate bowel complaints, in which the stools are of a waxey or clayey consistence. It has been also remarked, that it sometimes makes its appearance as an *original* disease, and even at the birth; in which case, the infant has never survived many days.

I have seen the rigidity extending beyond the cellular membrane, so as to affect the muscles, but only those of the lower jaw, which became perfectly rigid: but this *spasm* or *tetanus* is, by no means, a frequent symptom, and does not seize the extremities, as it is found to do in France; nor has the disease, in any instance that I have heard of, been attended with the *erysipelatous* affections constantly noticed in that country.

The Cause of this dreadful complaint, when congenite, or evidently supervenient to disorders of the first-passages, seems to me to be a spasm depending very much upon a certain morbid state of those parts, and with which the skin is well known to have a peculiar sympathy. But when, though an original disease, it does not take place till some days after birth, which, I believe, is rarely, if ever the case except in large hospitals, and other crowded apartments; wherever the irritating cause, in such instances, may be seated, the disease seems to be an *endemic* of certain seasons, arising from that

that unwholesome air to which such places are peculiarly liable.

The means of Cure in this country have been very different from those that have lately been found successful in France ; but instances of recovery have been very few in either. As Dr. Denman did me the kindness of giving me the first intimation of such a disease, I very naturally adopted his plan of treatment, which consisted in a strict attention to the state of the bowels ; and rendering the several medicines very warm by means of the compound spirit of ammonia, which was administered every four or six hours ; and was the only plan that he ever found attended with any success. Together with this, I after some time directed the frequent use of a warm-bath, and chafing the whole body afterwards with soft flannel ; and I think myself happy in having fallen upon one part of the plan that has since appeared to have been attended with the first instances of success in France, as will be noticed below.

As the disease raging so much in *France* seems to differ in many respects from ours, it is very doubtful how far the plan of cure lately adopted there may be applicable in this country, and my own experience has hitherto not gone beyond the means I last mentioned : but I would venture to suggest, that in many cases, trial might be safely and properly,

properly made, not only of carminative oylsters, but also of a grain of calomel previous to the infant being put into the warm-bath : * and after a sufficient number of stools shall have been procured by these means, exhibiting other volatile and cordial remedies beside the spirit of ammonia ; as well as anti-spasmodics of different kinds.

It was after I had made up my mind about this complaint, in the manner that has been just noticed, that an advertisement appeared from the Royal Society of Medicine in *Paris*, proposing this disease as the subject for their next prize-medal. About this time also, Mr. TENON published his *Mémoires sur les Hôpitaux de Paris*, in which is a brief account of this disease ; and very soon after this, Dr. Andry did me the honour of sending me his Traët, intitled, *Recherches sur L'endurcissement du Tissu cellulaire des Enfants nouveaux-nés*.

Though these works contain very accurate accounts of this disease, and to which Dr. Andry especially has paid an attention that must do him great honour, they at first served only to perplex my own views of it. This obscurity arose from the disorder being combined, or as I then rather conceived,

* To the warm water should be added a good quantity of salt, and some Castile soap.

ed, intirely confounded with another complaint first publickly noticed, I believe, in a former edition of this work, under the term *anomalous inflammation*; and from which Dr. Andry had, on this occasion, made two or three quotations. I therefore took the liberty of writing to that eminent physician, and was soon favoured with a satisfactory answer, by which I hope the public as well as myself may be obliged; as it must prevent any mistakes arising from the accounts which the above mentioned works afford of this melancholy disease.

After the description given of this disorder as it appears in *London*, little more will be necessary, I apprehend, than to select the circumstances in which *that* in *France* is found to differ, as related by Dr. Andry in his printed work, as well as the letters with which he was pleased to honour me.

It has already been said, that it is more frequently attended with *tetanus*, and never occurs without those appearances mentioned under the article, termed in this edition, *Infantile Erysipelas*, especially the redness and hardness about the *pubes*, accompanied farther with tumour and redness of the soles of the feet. But these parts, it seems, tho' of a purple red, are intensely cold, very rarely suppurate, but sometimes mortify.* In

* This is said to be the case in four or five children

In one very late instance, however, the infant was not cold, but on the contrary, exceedingly hot. The legs, thighs, and soles of the feet were red and hard ; but no mention being made of a general tightness of the skin, it is probable this child was affected only with that infantile erysipelas which appears amongst us.

Besides the above variations, the infants are said to swallow with extreme pain ; the extremities, especially the legs, are much enlarged, and attended with a serous effusion in the cellular membrane, which we have not hitherto noticed : and the disorder is likewise said to rage most in the hotter months.—The infants are observed to die about the third or fourth day, or at farthest, on the seventh from the birth. It is probable, there is another and very material variation, in respect to the degree of stricture and immobility of the skin, which are not clearly expressed to be either so considerable or extensive, as in the disease I have been describing ; but are more confined to those parts which become red and tumid.

But

children out of twenty, all of whom certainly die in a few hours after the gangrene has taken place ; and become so putrid, that by the next day, the skin separates from every part of the body, so as to adhere to the hands of those who have occasion to touch them.

But in the instance recorded by Scuringius it was clearly otherwise, the infant being said to feel, from head to foot, like a piece of flesh dried in the smoke. The child survived a compleat day, during which time it took no sort of nourishment; but never cried, nor made any kind of noise.

Upon examining a great number of dead bodies at the *Enfans Trouvés*, the serous extravasation is constantly met with; is of a deep yellow colour and fluid, but coagulates with heat; the fat is peculiarly solid; the glands and lymphatics, especially those of the mesentery, are found studded, and the liver uncommonly large, with a great quantity of deep coloured bile in the gall-bladder; and the lungs are said to be loaded with blood, as well as to contain an unusual quantity of air.

The supposed Cause of this disease amongst them, seems to me but ill accounted for; being attributed to the improper diet of the mother or her infant, or to cold it has taken at the birth: whereas, the coldness and rigidity of the skin seem to be but mere symptoms, and not the disease; especially as their children, like ours, are but rarely attacked from the birth. It should rather seem to be a true endemic, arising from foul air, especially as it is found only to attack the poor, and particularly to infest the two large hospitals that are crowded above all others,

and receive the lowest and most wretched part of them ; of whose new-born children, it is supposed, one out of twenty is visited with this disease.

It has been hinted, that for a long while, little attention was paid to this complaint, on account of its constant fatality, six hundred infants sinking under it every year, in a single hospital ; four hundred of which are born in the *Hôtel-Dieu*.

But since Dr. Andry's election, various means have been attempted both by himself and his colleague, Mr. Auvety ; and amongst other means, the warm-bath, which appears to have saved the first child that was known to recover.* Trial has since been made of blisters to the extremities, which succeeded also in the very first instance, as well as since in several others ; so that, in the last year, they are reported to have saved five infants out of an hundred, more than in the preceding one.

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* Monsieur Soaville, surgeon to the Military Hospital at Calais, has also given some account of this disease, in the *Journal de Médecine*, under the name of *Ædématie Concrete*, and observes, that it is a very common disorder in the provinces, as well as in Paris. Under his direction, likewise, a warm, or rather vapor-bath, succeeded in the only instance wherein he had made trial of it.

As this disease, more especially in the form it puts on in Paris, is now, by the encouragement of the Royal Society of Medicine, likely to be fully investigated, it may be hoped some farther light will be thrown on it : in the mean time, as it is evidently a complicated disease, the bark and cordials, with proper attention to the state of the bowels, might possibly be useful.

TETANUS.

THE Tetanus, or Locked-Jaw * of infants, is an equally fatal complaint, and as little known in this country, as the foregoing. In some instances, it has been confined to the jaw only, as in Jamaica ; in others, it has been attended with contraction and rigidity of other muscles of the face, and a peculiar fixedness of its features. Sometimes, the rigidity has extended to the neck; and in one child I observed it to be spread so completely over the whole body, that the limbs could not be bent so as to place it conveniently in the vessel appropriated to a warm-bath. It has already been observ-
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* This is the species which Nosologists have termed *Trismus maxillæ inferioris Rigiditas spastica*. Species I^{ma}. *Trismus Nascentium Infantes intra duas primas a nativitate septimanas corripiens*. Vide Cullen. G. Ixix.

ed, that it is sometimes joined with the foregoing complaint, but rarely in this country; and even then, the jaw partakes only of that kind of rigidity common to other parts.

In such instances of Tetanus as I have met with, the attack has not been earlier than the sixth, nor later than the ninth day from the birth ; and as far as I could learn, the infants had not been constive (as mentioned by Dr. Evans), nor apparently unhealthy : one, I remember, was a remarkably strong and lusty child. It seems somewhat to differ, therefore, from the disease termed *Jaw-fallen*, in the West Indies ; and in one instance appeared to have some resemblance to the *catalepsy*. The rigidity has stolen on in a more gradual way in some instances than in others, but has always been very great as far as it extended, from the moment it has been discovered ; so that in instances where the mouth has continued sufficiently open to admit my finger, I could not thereby depress the jaw. In some, the eyes have been bloated, and the whole countenance much swollen.

The cause of this complaint, which does not seem to arise from constipation, or neglect of purging off the meconium, may, probably, be a certain state of the air, as hath also been suspected in the West Indies; and the more so, as the disease has appeared only once in the British Lying-in Hospital

during a great number of years and then attacked several infants in a short time.

The remedies made use of at the hospital were, the warm-bath ; fomentations to the rigid parts, frictions with oil and camphire, and BATES's anodyne balsam ; blisters behind the ears, and to the nape of the neck ; and opium, calomel, the bark, and aromatic confection have been given internally.

One infant, in whom the complaint was confined to the jaw, and who had less rigidity than any of the others ; never looked ill, and had no convulsions in its limbs, died rather sooner than the rest. Only one survived the third day : this child was not seized till the ninth from its birth, and lived to go out of the hospital with its mother, at the end of the third week, and we hoped was then recovering ; but it had never been able to take the breast after the attack, and died three weeks after it left the hospital, though, possibly, not altogether from this complaint.

EPILEPTIC-FITS.

THIS and the following complaint, as well as the two immediately preceding, which relate, some to the more early, and others to the later periods of childhood, are noticed

ced together in this place, on account of their falling under the general class of convulsions, and it is presumed less improperly, on the whole, than ranking them according to the different periods of time in which they might take place.

Very few words, however, on the Epilepsy, or falling-sickness, may suffice, as it is either pretty easily cured, or usually continues through life; and is too well known by this popular name to require a particular description: an account of the various pre-current symptoms would be equally useless in this work.—It may just be noticed, that the patient falls suddenly to the ground, and sometimes without any perceptible warning, or at all sufficient to secure him from injury; and is usually much convulsed, but frequently retains his senses during the fit.

I believe it sometimes takes its rise merely from foul bowels, and certainly more commonly attacks children of a costive habit of body: it should then be treated agreeably to the directions already given in such cases, and especially with active and mercurial purges: after which, the bark, chalybeates, and sea bathing may be serviceable. In other instances, especially in more advanced life, and towards the time of puberty, the epilepsy seems to be owing rather to a more sensible nervous irritation. In such cases, blisters to the back of the head may

be useful ; and I have experienced much benefit from large doses of the powder of valerian, and opium ; and in one instance, by an infusion of favine, fennel seeds, and juniper berries ; but I never could entirely conquer the complaint by these means ; but the *olium succini* has, in several instances, perfected a cure in young subjects.

In the worst cases I ever met with, in which the fits were very long and violent, and to the number of twenty or thirty in a day, electricity has very soon rendered them weaker, reduced their number to three or four in a day, and gradually to one in a month ; but did not entirely remove them. In such obstinate cases it is generally supposed, that the brain is affected by some local and permanent cause, and a perfect cure is consequently despaired of.

When this disease has attacked children of five or six years of age, and where no treatment has been serviceable, the complaint has very frequently disappeared suddenly about the time of puberty, and sometimes a year or two sooner. Where it does not, it will probably continue through life, and now and then prove suddenly fatal.

Upon examining the brain after death, I have found a small point of bone standing out from the internal part of the *os frontis*, as sharp as a needle (of which Boerhaave has

has recorded several instances) and was, doubtless, the true cause of the disease.

CHOREA SANCTI VITI, or SAINT VITUS'S DANCE.

I SHALL be equally brief on this untoward disorder, which, though not often fatal, is like the former, I believe, rarely cured but in young subjects.

Worms and other foulness of the bowels in children, are likewise frequent causes of this strange convulsion; in which different parts, and especially the extremities are put into continual motion, giving the patient a very awkward appearance, particularly in his walk.

If the first-passages are the seat of irritation, the complaint must be treated in the manner noticed under the preceding article; and, indeed, in most cases, the cure should be begun by administering aloetic, or mercurial purges. But should the disorder appear to be owing rather to relaxation, as it sometimes is, the bark, chalybeates, and other tonics, especially the *vitriolum album*, and sea-bathing, are indicated, and are very frequently successful; as I have seen in a late instance, in a child of eleven years of age.

TEETHING.

TEETHING.

THE complaints arising during dentition may next be considered, many of the foregoing being blended with it, the first-passages and the nervous system being always more or less affected. The state of dentition is likewise not unfrequently an occasion of many complaints afterwards to be mentioned, such as cough, fever, the rickets, and even consumption ; under each of which heads therefore, occasional references will be made to it.

The time of teething is a most important period of the infant state, and subjects it to manifold complaints and dangers. Some writers, indeed, and particularly Dr. Cadogan*, and Dr. Armstrong, seem to think otherwise ; and that teething is scarcely to be ranked amongst the diseases of infants. They have imagined that children, if otherwise healthy, would cut their teeth with no more danger than adults, who often cut their wise-teeth, so called, at an advanced age, without any difficulty, and always without hazard. They likewise observe, that many children get their teeth easily. But this argument must suppose the healthiest, and

* See his *Essay on Nursing, &c.*

and best nurtured children, to be, in all respects, in the same circumstances with adults, which is, by no means the case ; as they are liable to fever, dangerous purgings, and even convulsions, from causes that would in no wise, affect the latter : nor can they stand under some of those complaints so long as adults, nor endure the necessary remedies. For the same reason, the measles and small-pox carry off such numbers of infants, when attacked by them a little more severely than common, whilst young and healthy people often struggle through the most dangerous and complicated kinds, when properly treated from the beginning. Not to mention, that very few infants, who are unhappily affected with *tues venerea*, recover under any treatment, whilst adults are cured in the most advanced stages of the complaint, notwithstanding some parts may be actually mortified. I have, therefore, no doubt, that the time of teething ought to be ranked amongst the most dangerous to infants, and that the greatest attention ought to be paid to it ; though it is probable that Dr. Arbuthnot greatly over-rates its fatality, when he says that one child in ten may be supposed to sink under it.

Some late writers, and particularly Mr. Le Febure De Villebrune, have conceived this to be a mere dispute about words ; but the

the difference, indeed, extends much farther. For though I would, indeed, by no means assert dentition itself to be a disease, and have made use of any such like expression merely in a popular way, yet am I confident it induces disease in very many infants of every habit of body, and more especially, however strange it may seem, in the apparently healthy and robust. Indeed, weak and even rickety children, more commonly cut their teeth easily, tho' often very late ; or if they should be harrassed by a purging, and other complaints, they, nevertheless, escape with their lives oftener than lusty strong children, who are frequently carried off suddenly at this period, unless the teeth happen to find a very easy passage through the gums. The system, during dentition, being disposed to inflammation, such children must oftener fall into fever than the tender and delicate ; like athletic adults, who are more disposed to inflammatory complaints, than those who are of a colder, but less healthy temperament : and it is by acute fever, or convulsions, that infants are carried off, who are well known to survive a thousand lingering and vexatious complaints, if their *viscera* be sound.

This period usually commences between the fifth and tenth months, and the process of the first teething continues to the eighteenth at the least, and sometimes much longer.

ger. The two front teeth in the lower jaw are usually cut the first, and it is commonly a few weeks longer, before the corresponding ones in the upper jaw make their appearance. After which, it is frequently a considerable time before the next under-teeth come out ; but sometimes, though not often, six or eight are cut in a hasty succession. Children sometimes cut their teeth irregularly, or cross, as it is called, both by the teeth appearing first in the upper jaw, and also at a distance, instead of being contiguous to each other : this is accounted, and with some reason, indication of difficult, or painful dentition.

Teething is usually preceded and accompanied with various symptoms : the child drivels, or slavers much ; the gums swell, spread, and become hot ; there is often a circumscribed redness in the cheeks, and eruptions on the skin, especially on the face and scalp ; a looseness, gripings, green stools, watchings, startings in the sleep, and spasms of particular parts ; a diminution, or increased secretion of the urine, and discharge of matter, with pain in making water, (imitating exactly a virulent *gonorrhœa*) which often mitigates the fever. A less common symptom, appearing only in certain habits, is a swelling of the tops of the feet and hands : it seems, however, of no importance, and goes away upon the appearance of

of the teeth. I never met with it but in infants who cut them painfully ; and being seldom accompanied with a purging, it is likely may prevent that fever which is otherwise so apt to attend. In all cases, the child shrieks often, and thrusts its fingers into its mouth : and these symptoms are sometimes followed by a cough, difficult breathing, fits, fever, scrofula and marasmus, or universal decay.

Strong and healthy children cut their teeth both earlier and more easily than the weak and tender. I have known a weak, and rickety child, without a tooth at twenty-two months old,* though it lived to grow up ; but at the age of five years became scrofulous. Therefore air, exercise, wholesome food, an open belly, and every thing that has a tendency to promote general health, will greatly contribute to the safety of dentition.

Difficult teething is to be treated nearly as other acute diseases with local inflammation. If the body is at all bound, some opening medicine should be administered, and it is to be observed, that even a considerable degree of looseness is useful ; few children cutting teeth so well as those whose bellies are at this time much more than com-

* Primrose speaks of it being as late as the third, or even fourth year.

monly open. Diluting drinks are also very necessary, especially if the child does not suck ; with a light food, in small quantities, and frequently taken. If much fever attends, the loss of a little blood, in some way, will be necessary ; though children do not endure bleeding so well as they do other evacuations. If the propriety of bleeding with the lancet be doubted, a leech or two, as Harris advises, may be applied behind the ears, and is generally serviceable. Clysters are also very useful, especially if there be retention of urine, which will likewise call for the use of the warm-bath. Gentle diaphoretics are also serviceable, particularly of wine of antimony, or the *antimonium tartaratum*, which besides opening the belly, often operate in this way : a blister should likewise be applied between the shoulders, especially if there is any disposition to fits. And, indeed, if stools do not afford some considerable relief, there should generally be some discharge from the skin ; since a purging, and eruptions on the skin, when spontaneous, are the grand means of easy dentition. A little discharge should therefore, be kept up behind the ears, by rubbing the parts with *Spanish* flies, applying a thread as before directed, or putting on a small blister ; which may be kept open. A burgundy-pitch plaster laid on the back will sometimes suffice, which should be renewed

newed every ten days, till the symptoms disappear, or the teeth come into sight. Even before this period, light scarifications of the gums are very useful, by taking off the tension ; or if the teeth are at all to be felt, lancing them, as it is called ; the proper method of doing which will be noticed below.

I shall close what I have to offer on the general plan of treatment, by observing, that the indications certainly are to assist the eruption of the teeth, and to moderate the inflammatory and other symptoms : which must be treated according to their kind : all parts of the body readily consenting with the gums at the time of teething, but the nerves, the bowels, and the lungs, more particularly and importantly than the rest. It has been observed, that a purging is beneficial, and it is, indeed, surprising how considerable a diarrhœa children will stand on this occasion, and how very bad the stools will often be for many weeks together, and a child happily struggle through ; though at another time, an equal degree of purging, with such bad stools, and constant fever, would prove infallibly fatal. The diarrhœa is therefore not only to be cautiously treated according to the directions already given under the article of purging, but is oftentimes rather to be encouraged than suppressed. Very pale stools are at this

this time not uncommon, and are sometimes in vast quantity : I have known an infant have fifty in one night, at least by the account of a careful and discreet nursery maid ; and from the quantity of feces that I saw the next morning, I had no reason to dispute her calculation.

For the fever of dentition, besides bleeding the absorbent powders are eminently useful, and are in various respects calculated to afford relief. To these, sometimes a grain or two of Dr. James powder may be added at bed-time, which, if there should be any thing amiss in the stomach or bowels will either vomit or purge, but otherwise (it has been said) will promote a kindly sweat, which is always beneficial. Nitre is very often useful, joined with the testaceous powders, or a little of the compound powder of contrayerva—Sydenham directs three or four drops of the compound spirit of ammonia in a spoonful of water every four hours, for four or five times, and I have thought it very serviceable after proper evacuations ; but this dose may be considerably increased, according to the age of the child. Nor is a drop or two of laudanum to be feared, if the bowels have been previously opened, the pain be very great, and the breathing not difficult.

A principal indication, it has been said, is to assist the eruption of the teeth. This

is attempted, by cooling, sedative, and demulcent applications made to the gums ; by rubbing them with some hard, polished body, such as the coral ; or by dividing them with the lancet : which last is the only mean to be depended upon. When it is found necessary to lance the gums, (which is ever, at least, a safe operation) it should always be done effectually, with a proper gum-lancet, and not with a needle, a thin six-pence, or such like instrument, which will not sufficiently divide the gum, or the strong membrane that covers the teeth. The lancet should always be carried quite down to them, and even be drawn across the double teeth. It is certain, that this little operation gives scarcely any pain, and the relief is at the same time often so considerable that the child appears exceedingly pleased with it, and will immediately squeeze the jaws and grind them together forcibly, which proves the gums are not very sensible.

The most painful part of dentition, and that in which children are most exposed to convulsions, is usually from the teeth cutting through the *periosteum* (or nervous membrane mentioned above) that covers the jaw immediately under the gums. This, I apprehend, in difficult dentition, is often not cut through, but is forced up before the teeth, when they are even in sight under
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the thin gum ; hence it is, that cutting through the gum is so very often useful, and takes off fever and convulsions, which severe symptoms could not arise merely from piercing the gum, which, it has been said, is not a very sensible part. At other times; the pain and fever seem to arise from almost the very first shooting of the teeth within the jaw, and then they will very often not appear for some weeks after the gums have been properly lanced ; and parents are therefore apt to conclude, the lancing has been unnecessarily done. I am, however, convinced from experience, that this little operation, though not in the general esteem it *ought* to be (and by the *French* physicians even dreaded at this period)* is often inex-pressibly useful, and appears to have saved many lives, after the most dangerous symptoms had taken place, and every other mean of cure had been made use of. And I cannot here forbear expressing my surprize, at the fears some people entertain of lancing the gums, and their delaying it so long, if not altogether rejecting it, though no evil can possibly arise from the operation. On the other hand, its advantages are so great, that whenever convulsions take place about the usual period of dentition, recourse ought always

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* See *Livetaud.*

always to be had to it, after an unsuccessful use of other means; though by an examination of the gums there may be no certain evidence of the convulsions being owing to such cause; the irritation from teething, it has been remarked, often taking place in a very early stage of the disease. At any rate, it has been said, the operation can do no harm, even at any period, and should the shooting of teeth be only an aggravation to the true cause of the disease, lancing the gums must be attended with advantage. But should teething be the proper and sole cause, it is evident how fruitless any other mean of relief must frequently be: for should convulsions, for instance, take place from a thorn run into the finger, or toe, the proper indication of cure, by an immediate extraction of the thorn, and the probable futility of other means, would be equally obvious.

The operation may also be safely repeated, the scars doing no kind of harm. And indeed it will be frequently necessary to lance the gums several times, on account of the extraordinary difficulty with which some infants cut their teeth, especially the double ones, which are furnished with two or more knobs or points. Fever, purging, and even convulsions will sometimes arise from only one point of a large tooth offending the *periosteum* that covers it, and being nearer the surface

surface than the other points, the lancet sometimes does not completely divide the membrane that lies over the rest ; and this part not being injured by the tooth, the symptoms subside on having divided that portion of membrane that was inflamed. But in a little time, another point of the same tooth is found to irritate the *periosteum*, and calls for the like assistance of the lancet, which again removes all the complaints. This, at least, I have conceived to be the process, when I have found lancing a large tooth immediately remove every terrible symptom, though the fever and other complaints have returned, and the tooth not appeared till the operation has been three or four times repeated. I have seen the like good effect from it, when children have been cutting a number of teeth in succession, and have bred them all with convulsions. Nothing having relieved or prevented these terrible symptoms but lancing the gums, which has removed them every time it has been done, one or more teeth appearing a day or two after each operation.---In such cases, it will often be proper to draw a lancet along a great part of one, or even both the jaws, at the same operation.

Some writers, however, and Dr. Millar particularly, have advised, not to cut quite down to the teeth, but only to scarify the gums, unless the teeth are very near. He
suspects

suspects that the instrument often injures them, and produces caries, which he thinks will be communicated to the succeeding set of teeth. But this is a needless scruple, and I apprehend arises for want of duly attending to the state of the teeth, which are perfect bone, and covered with a strong enamel, long before they get through the gums. The manner of the second teething of children likewise forbids such a fear ; for though the first set, which are designed by nature to be only of short duration) should actually be injured by the lancet, the succeeding ones are not at all likely to be affected by the carious state of the former. For the first teeth of infants constantly become carious at the roots, and are loosened and expelled by that means, when left to nature alone ; and though the upper parts of the new teeth are in contact with the carious bottoms of the first set, they never suffer from this circumstance. I have dwelt the longer on this head, because writers are not agreed on the subject, and it is a matter oftentimes of no small importance. I have, however, written from *experience*, and am *perfectly satisfied* of the propriety and safety of what I have ventured to recommend.*

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* See Mr. Hunter's copious and accurate account of the teeth, and their diseases.

It has been hinted to be a common practice to touch the gums with oils and mucilages, and to rub them with some hard and polished body. To answer the first intention, perhaps a little honey, or syrup of white poppys is as proper as any thing, or the honey may be lightly acidulated with spirit of vitriol. Besides the coral, a crust of bread, or a piece of liquorice root, may be often carried to the mouth, and may sometimes be preferable, as they will yield a little to the pressure of the gums.

It should be a pretty general rule during the time of teething, to abate a little of the usual quantity of food, and the encrease the qnantity of drink ; unless the child is very weakly, or every thing is going on perfectly well : or if the child be at the breast, a similar regard ought to be paid to the diet of the nurse.

Children will sometimes have ulcerated gums in teething, and more frequently where they have not been lanced, which are easily cured by keeping the body open, and touching them with astringent applications. As much white vitriol, or roch alum as will give a moderate roughnes to a little honey, is usually sufficient for this purpose. But should this fail in any case, it must be treated as directed under the head of Canker.

FEVER.

THOUGH some writers have supposed infants to be as liable to fevers as adults, and from the same causes, I have, by no means, found it so, and I wish parents to take comfort from the consideration ; having observed for many years, as well in the hospital, as in private practice, that infants do not readily take common fevers, though exposed for a long time to that contagion which has appeared to affect adults around them. Their fevers are also of a short duration if properly treated, unless the few that arise from some more permanent irritating cause.

Young children, however, are disposed to some febrile complaints peculiar to themselves ; which, as I have enlarged this edition considerably, with the design of taking in all their complaints, I shall bestow some pains in specifying, as well as pointing out the treatment most adapted to each.

The more frequent causes of fever, are teething, foul bowels, worms, glandular diseases, some eruptive and very contagious complaint, or taking cold, and are often attended with symptoms peculiar to children. If from the last mentioned cause, and the cold be severe, it will always be attended with a cough, hoarseness, and some difficulty of

of breathing, and often with running at the nose or eyes, which will distinguish the fever from all others, except it be the measles; which will be attended likewise with violent sneezing, and a peculiar appearance of the eyes not often met with in a common cold.

If a fever from cold be considerable, the cough violent, and the difficulty of breathing very great, a blister will always be safe and expedient, and may be applied at the pit of the stomach instead of the back, as being both less painful under any motion of the body, and more readily got at to be dressed, or for the application of fresh cloths, where the discharge happens to be considerable. But if the fever and difficulty of breathing should not be very much abated by the blister, children though within the twelve-month, will bear and even be greatly benefited by the loss of a little blood,* at least by the application of two or three leeches.

* *In mittendo sanguine, non tam annos medicus numerare, quam vires ægrotantis æstimare debet.*
Celsus. *Lib. ii. cap. 10. p. 78.*

Galen indeed forbade bleeding till after fourteen years of age, but since the time of Celsus, that absurd idea has been exploded. Rhazes permitted cupping after three or four months; Avicenna at a year old.—Some allowed of bleeding in the feet or legs, though not in the upper parts; but this useful operation is now justly unconfined; and extended, occasionally, to every period.

leeches, as I have frequently seen ; and I mention this again, because it has been thought so highly improper for infants. But I can venture to say, they will be much less reduced by it, than by the continuance of the fever, which the loss of a little blood will, in many cases, shorten by two or three days ; and which is sometimes absolutely necessary, and in peripneumonic cases, may even be repeated with safety and advantage*. Oily medicines, likewise, made into a neat emulsion, are often useful, especially if the child be not at the breast ; but they should be preceded by an emetic of wine of antimony, as there is usually much phlegm on stomach ; children never coughing it up. In many cases it is also necessary to repeat the emetic, as often as the phlegm in the throat is collected in such a quantity as seems to impede respiration. But if the cough be dry or convulsive, Bates's *spirit. sal. ammoniac. succinat.* may be safely and usefully administered, if there be not much fever. The body at the same time should be kept perfectly open, and this purpose is usually well answered by smaller doses of wine of antimony, or of Dr. James's powder ; but if they should fail to procure stools, as they sometimes will, where there

* Multa in præcipiti periculo recte fiunt, alias amittenda. *Id. Lib. iii. cap. 18. p. 150.*

is much fever, they rather do harm than good, unless a little manna, or rhubarb be joined with them.

It is very necessary here to observe, that though preparations of antimony may perhaps be safely administered under the eye of very attentive parents, they are very powerful medicines, and not to be prescribed by nurses and ignorant people, or without great caution. And I hope this may be admitted as an apology for the liberty I have taken in saying so much against some practices highly extolled by other writers, and especially the indiscriminate use of antimonial wine, * which has induced some people to make free with medicines of this class, who are in no wise competent judges. † But where such medicines are found to agree,

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* It may be proper once for all to remark, that, it is presumed truth calls for an undisguised account of every writer's sentiments, from whomsoever he may differ; who, the more respectable their names and opinions may be, and the oftener their authority may be quoted, by so much the more prejudicial any erroneous sentiments or practice must become. It is to method and measures, not men, that writers have to object: when compelled so to do, I wish always to express myself in a manner equally respectful and intelligible; after which an impartial public will judge on which side the fairest reasoning, or safer line of practice may lie.

† A nurse very lately proposed giving half a grain of tartar emetic to an infant of a few days old.

and keep the belly open, children frequently stand in need of no other ; though where the fever has been very considerable, I have given nitre to advantage to infants of only a few months old. In the little fevers arising from taking cold, to which some children are very liable, I often join it with a little of Dr. James's powder, (proportioned to the age) and a few grains of the compound powder of contrayerva, lowered with testacea ; which I find to be a medicine exceedingly useful, when given in time. If the head is much affected, putting the feet into warm water, or applying a milt to them just taken from the animal, are admirable remedies ; and I think have sometimes saved a life after all hope had been given up. Or a little fresh leaven, or dough, as advised by Mr. *Le Febure de Villebrune*, may be spread thinly over the soles of the feet. If the fever be accompanied with much cough, and attended with difficulty of breathing, which comes on by fits, both may be greatly relieved by ten or fifteen drops of the spirit of vitriolic æther, given three or four times a-day. But in the absence of fever, the breast-milk is often as good a balsamic as can be had ; or if the child be dry-nursed, a little syrup of balsam is both pleasant and useful.

If the fever be not owing to taking cold, to worms, teething, or some eruptive complaint,

plaint, it will generally be found to arise from some foulness in the first-passages, in which case, opening the belly, and afterwards giving a puke and the testaceous powders, usually remove it. But if otherwise, opening medicines must be continued a while longer, especially castor-oil ; but if the stools are very fetid, the basilic powder, or small doses of calomel are the fittest purge ; though they require to be administered with caution. I have known not only convulsions, but paralytic affections, attended with great pain and continual fever, induced merely, as I apprehend, by a foul state of the bowels ; where, after the complaint has been unsuccessfully treated as a fever of another kind, all the symptoms have been removed at once by an active purge. Even infants of only three or four months old will often have very considerable fever, and fits, with so costive a state of the bowels as to require strong purgative medicines to be repeated for several successive days, with clysters and the warm-bath, before the obstruction can be removed, or the fever will at all abate. And I doubt not, it may be matter of surprise to those who may not frequently have met with such cases, to find what a quantity of purging medicines have been taken by a tender infant before one proper stool could be procured, and how certainly a relapse will take place, if the

opening plan be not persevered in, in the manner recommended. In less urgent cases, and especially in very young subjects, much gentler means will usually succeed; and after the belly has been once or more well opened, many common fevers will nearly subside; after which it will frequently be proper to return to some of the absorbent powders, in one form or other, and that recommended by Boerhaave * may be as proper as any; though the union of different testacea is of very little importance. Any of them will form an admirable medicine for very young children, as well under little fevers, as for almost all their complaints not attended with much costiveness. This, the judicious Harris was so sensible of, that he thinks them alone sufficient to effect almost every thing during the *infant* state, and has done unspeakable service by abolishing that indiscriminate recourse to cordials, and other heating and rough medicines, such as mercury, *aurum fulminans*, *theriaca*, &c. together with various anile and superstitious remedies, which the ancient writers frequently recommended on occasions peculiarly improper. And though absorbents will not do every thing he has imagined, yet are there very few medicines of such general use. But should the fever withstand these

* See the prescription under the article of Purging, page 85.

these common remedies, or be found to increase, it will be necessary to give some of those before recommended, or, what is sometimes very useful, little draughts with lemon juice and salt of hartshorn, in which the latter is left a little predominant; or three or four drops of the compound spirit of ammonia, in a little water, four or five times a-day. I have, indeed, lately experienced very good effects from persevering in the use of small doses of wine of antimony, given in a saline draught, in the little obscure fevers of infants, where the cause has not been so obvious as it commonly is.

On the decline of some fevers, especially those arising from fowl bowels, it is not uncommon to see an eruption on the skin, resembling that called the red-gum, in the month, and sometimes even the thrush will make its appearance, though the infant may have had that complaint already; which are marks of the great disturbance the first passages have suffered, and of the consent they have with the skin; the former, it has been said, is always a favourable indication; but the observation does not hold good in regard to the thrush.

Fevers in children of three or four years old, are sometimes tedious of cure by any of the above means, and like those of adults, require the bark; which should be administered

nistered in a light decoction three or four times a day, in such doses as the symptoms may require.

I have sometimes met with a fever, more remarkable for its being attended with inflamed and painful tumors, than for any other symptom peculiar to it. These are seated chiefly on the legs, and particularly along the spine of the *tibiae*; and rise in a day or two to the size of a nutmeg. They are marked with all the appearances of abscesses, feeling as if they contained matter, and on this account, they put on a formidable aspect to such as may not often have seen the disease; but what is remarkable, they never, I believe, come to suppuration, but disappear again in a few days, though the fever sometimes continues. The like appearances have been met with in adults, and especially females, but perhaps more commonly in children from three to ten years of age; and are not peculiar to scrofulous habits. As far as my experience has gone, (for I believe it is not a very common complaint) they are conjoined more frequently with that fever which attends a foul state of the bowels, than with any other; which therefore requires repeated purging, especially with calomel; and on this account, the *pulvis è scammon. cum cal.mel.* becomes a convenient preparation. Saline draughts with the *spir. ætheris vitriolici* may be

be given on the intermediate days, and in the end the bark is commonly useful.

MESENTERIC-FEVER.

A NOTHER cause of fever has been hinted at, which is obstructed glands, especially the *mesenteric*; and is often a fore-runner of the true hectic fever, or fatal marasmus.

It, indeed, frequently arises from scrofula, which then discovers itself by other marks; and will require its peculiar treatment. But there is an early stage of glandular obstruction in the mesentery, and of the fever here alluded to, that is often falsely attributed to worms; but will not yield to mere purgative medicines. It attacks children from the age of three or four years, the fever remitting, and sometimes intermitting irregularly; is attended with loss of appetite, swelled belly, and pain in the bowels; the latter more commonly taking place, more or less, every day, or is generally more violent if the child be a day or two free from it. After opening the bowels, half a grain, or a grain of calomel may be given to advantage, two or three times a week, and on the intermediate days small doses of the *natron ppt.* either alone, or neutralized with the juice of lemons, or in

in some instances partially so. If the belly be very costive, as it often is, an infusion of the burnt sponge and senna is more effectual than any thing ; and when strained through filtering paper, make a neat preparation, and an excellent remedy for many little fevers, in older children, when the *primæ viæ*, or first passages are concerned. When the glandular fever, just now mentioned, has abated, some light bitter, as of camomile flowers, is useful to brace the stomach and bowels ; and to prevent a relapse, it will often be found necessary to administer some chalybeate, of which the *tinct. flor. martialium* is usually the most proper for children.

But as this fever, from its great fatality and frequency, has lately very much engaged the attention of writers, it may be proper to consider it a little more distinctly in some of its principal stages ; in each of which its nature and treatment sometimes materially differ. For before the mesenteric glands become much enlarged, or the fever continual ; whilst the appetite continues, and the first digestion is but little impaired, and no purging has taken place ; the opening mixture of sponge and senna, with a few doses of calomel, and afterwards bitters and chalybeates, are the only remedies very likely to be called for. In this state, the disorder may still be considered as in its first stage,

stage, and of which an unusual costiveness, the hardness and recurring pains in the belly, and an intermitting fever, are the principal symptoms. The limits of this work, however, will not allow of a particular detail of the many others that attend this fever through its various stages ; and it is presumed, they are so well known to medical people as to render it unnecessary. But in general, it may be said, that indigestion, costiveness or purging ; irregular appetite ; flushed cheeks, or a total loss of colour ; impaired strength and spirits ; remitting fever ; and a hard and tumid belly, with emaciated limbs, are amongst the more constant symptoms attending, at one period or other of the disease.

Children are liable to it from their infancy to six or eight years of age, it being often a consequence of the long continuance of almost any of the preceding complaints, especially those of the first passages and dentition, as well as the measles, and a few others ; of which that from teething will be separately considered. Among the poor, it is too frequently owing to a coarse and unwholesome diet ; indigestion at the stomach, and a consequent vitiated chyle, with infarction, or obstructions in some of the internal glands or lymphatics, being among the primary remote causes of the disease.

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As prophylactics, or preventives therefore, good air, exercise, gentle frictions, an easy dress, frequent washings of the body of young children with soap and warm water,* the cold-bath, in older children, and especially a light and nutritious diet, with such mild aromatics as may assist digestion, are some of the principal and most efficacious means.

But when this fever is actually formed, it calls for the most powerful remedies; and such have happily succeeded in several instances, wherein formerly little hope had been usually entertained.

As I am constrained to pass over many less important symptoms occurring in the different stages of this long disease, especially such as arise from some peculiarity of habit; so will it be necessary to confine these observations to the more general plan of treatment, without particularly noticing a variety of occasional remedies, which such symptoms might at different periods require.

In a general way, the principal indications are to remove the obstructions in the lymphatic system, and effect a resolution of the indurated glands of the mesentery; to carry

* This idea is as ancient as the time of Hippocrates, who strongly advises it.

carry off this viscid matter; and lastly, to strengthen the system, and establish a good digestion, as well by means of proper diet as by medicine. To accomplish these intentions, attenuants and deobstruents, purges and emetics, and tonic, or bracing remedies, must be had recourse to, in their turns.

Amongst the first, and as general deobstruents, are mercurial and antimonial remedies, neutral salts, soap, steel, and, according to some, the cicuta.

In regard to the efficacy of mercury and steel in this disease, a vast crowd of testimonies appears among writers,* in almost every part of Europe. And a very rational idea has been suggested on this head, by Mr. Royer, that of administering mercury clyster-wise; inasmuch as the resolution of local and partial obstructions, does not so much require an exertion of the collected force of the system, as deriving all the influence of proper remedies to the seat of the disease: an idea of late years pretty generally received, and in some instances, successfully adapted to the cure of scrofula, as well as some other chronical disorders.

Calomel

* White, Hartmann, Worlhof, Theden, Burchard, Baumé, Baumes, Roseen, Fouquet, &c.

Calomel is, perhaps, one of the fittest remedies of this class, and may be combined with some purgative medicine, and given for several weeks, till there shall be some favourable change in the feel and size of the belly.

The lightest preparations of steel are usually preferable, such as its tinctures, or the salt, or merely some chalybeate water; which will act both as aperitives and tonics; and amongst *antimonials*, the *kermes mineral* is found by experience to be more generally useful than any other preparation.

The *Evacuants* mentioned as proper in this disease, were emetics and purges; to which may be added diaphoretics. The two former are more essentially necessary; but must be adapted and carefully dosed, agreeably to the state of the bowels of the patient. As a purge, rhubarb and salt of tartar are generally the safest and most effectual, and may be persevered in for the greatest length of time; or the composition which, in regard to many cases, has been deservedly extolled by Sir William Fordyce, rhubarb and polychrest salt; which, whenever mercury may not be preferred, should be exhibited daily for several weeks, and will sometimes restore the patient without recourse to any other means, when the disorder is not of long standing; being at

once both a purge and an efficacious deobstruent.

As a *Diaphoretic*, sarsaparilla, or a more compound decoction of the woods ; which may be taken together with any of the above mentioned remedies.

The last means recommended were *tonic*, or *bracing* medicines, which can very rarely be dispensed with ; since although the obstructions should actually be removed, the emaciated state to which the patient is generally reduced, peculiarly calls for bracing remedies, especially with a view to strengthening the stomach and alimentary canal, and promoting a good digestion ; the only means of obtaining a bland and nutritious chyle, by which the body may be conserved in good health. To this end, the bark, steel, the cold-bath, light bitters and aromatics, are the principal remedies ; to one or more of which, recourse may be had, as the degree of remaining fever, and the state of the bowels may point out. To these may be joined daily frictions, especially of the belly and limbs ; or the common soap-plaster, or one composed of ointment of marsh-mallows, gum ammoniac, and oil of chamomile, applied over the whole belly : or the body may be covered all over (as directed by Mr. Baumes) with sea-salt, reduced to a very fine powder.

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It has been already hinted, that the diet ought to be of the lightest and most nutritious kind, and carefully adapted to the age and other circumstances of the child ; who, if at a due age, ought in many instances, to partake of light white meats, as well as vegetables, and plain jellies ; but always avoiding fat and greasy aliments, pastry, and whatever may not be duly, as well as quickly digested, or will not form a bland and nutritious chyle, however readily they may get out of the stomach.

Though in some instances, merely purging with calomel or rhubarb, for a length of time has been said to succeed, and in others, some one of the above remedies may be more adapted to the patient than the rest ; yet in general, each of them will be useful, at one period or other of the complaint, and sometimes the union of several : but above all, purging is always the most essential to the cure of this dangerous disease. And though it is oftentimes attended with costiveness and a voracious appetite, it is, at others, accompanied with a loathing of all food, and frequent stools, which do not reduce the belly, but too often deter practitioners from the use of active, or repeated purges ; without which, however, experience proves there can be no prospect of success, after the belly has once become enlarged.—I shall close these observations with

with offering the following form, which in a general way, may be as suitable as any. It should be continued for a length of time, taking care that the bowels be kept properly open by it, or by other remedies occasionally administered.

R. Calomelan. gr. j. ad. ij.

Pulv. Ipecac. grfs. ad. gr. j.

Zingiber. gr. vj.

Misce, ft. Pilulæ is, cum quantitat. suffi-
cient. vel. Conf. aromaticæ, vel Conf. opi-
atæ, ut alvi status postulet.

HECTIC FEVER, and MARASMUS.

NOT a few, both of the preceding and following complaints, are sometimes found to induce a confirmed hectic fever, and marasmus, or a wasting of the whole body, called by some writers *Atrophia Lactantium*; though it often comes on too late properly to admit of the name. I have nothing new, indeed, to offer on this disease when it seems to be far advanced, unless it be by way of encouragement to hope for a better issue in the hectic fever, under certain circumstances than we are wont to expect.

This fever, as it is apt to arise from other
O 2 complaints,

complaints, is very often owing to their having been imprudently treated, or imperfectly cured, especially by suppressing some eruption or discharge from the skin, or incautiously stopping a purging during the time of teething. In such cases, and indeed whenever the hectic fever is of some standing, the mesenteric glands become indurated, greatly increased in size, and often suppurate, the belly getting large, though the limbs and other parts become emaciated ; which state has been treated in the former chapter, and has been shewn to be curable, or otherwise, according to the degree of induration, and the length of the time it has existed. But there is sometimes a threatening appearance of hectic fever, where nevertheless nature effects a salutary and wonderful change, and will restore the emaciated infant as from the very jaws of death. And this, indeed, is often the work only of nature, art doing no more than superintending it, and preventing her being counteracted by the use of improper medicines, or diet.

Nature alone will, indeed, oftentimes effect wonders for infants, and far beyond any thing to be expected in adults, if she be not officiously counteracted. And the reason is obvious, it being well observed by

a great man, and a good physician,* lately deceased, that “ there is, in truth, a greater luxuriancy of life and health in infancy, than in any other period in life. Infants, it is acknowledged, are more delicately sensible to injury, than those advanced in life ; but, to compensate this, their fibres and vessels are more capable of distension, their whole system is more flexible, their fluids are less acrid, and less disposed to putrefaction ; they bear all evacuations more easily, except that of blood, and, which is an important circumstance in their favour, they never suffer from the terrors of a distracted imagination. Their spirits are lively and equal ; they quickly forget their past sufferings, and never anticipate the future. In consequence of these advantages, children recover from diseases, under such unfavorable symptoms as are never survived by adults. If they waste more quickly under sickness, their recovery from it is quick in proportion, and generally more compleat than in older people, as diseases seldom leave those baneful effects on their constitutions, so frequent in adults. In short, a physician ought scarce ever to despair of a child’s life, while it continues to breathe.”—In

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* Dr. Gregory—*Comparative view of the State and Faculties of Man with those of the animal World.* 1785.

farther support of this sentiment it may be observed, that their complaints are not often attended with acute fever, like those of adults, which is disposed rather to break up the system, than to rectify the machine.

The above mentioned salutary turns in the true hectic fever, as far as I have observed, are chiefly in that species of it arising from worms or teething; and in which I have known recoveries after hope had long been given up, and all attempts been laid aside. There is, indeed, an atrophy, or universal decay in infants, for want of the breast, or from the unsuitableness of it, or of whatever else may be the child's ordinary food, (as I shall instance in another place:) but this is not usually attended with fever, and is to be cured merely by making that change, which the nature of the different occasions points out. Harris recounts some remarkable recoveries in what he calls the *Atrophia verminosa*, (or Worm-hectic) and attributes the cures to the free use of the *hydrargyrus cum sulphure*, carefully prepared; but I have seen none so marvellous as in the *Atrophia Dententium*, or Tooth-atrophy. In this, I have known children after being reduced by purging, and other complaints, lying for three months together in the cradle, scarcely fit to be moved, with continual fever, flushed cheeks, emaciated countenance and limbs, a large belly, incessant cough, and almost

almost without taking any nourishment, recover, as it were in a few days, upon unexpectedly cutting half a dozen teeth.

After what I have said on this fever, it will not be expected I should offer much on the head of medicines; I shall therefore only observe, that after making trial of the mixture recommended by Boerhaave,* when acidity may prevail in the bowels, or prescribing opening medicines, as directed under the heads of costiveness and purging, are the chief indications in this advanced stage of the complaint. With this view, Sydenham's rhubarb-beer, † and purging with mercury, if that has not already been done, should even now be attempted, since children in this state will often bear stronger doses of purging medicines, and more frequently repeated, than under any other circumstances.—Some attention, however, should be paid to the diet, which ought

should

* Page 85.

† Take of choice rhubarb sliced, two drams; let it be put into a glass bottle, well stopped, with a quart of small-beer, or any other liquor the child may make use of. This medicated beer is to be his ordinary drink. When this quantity is drank, a second, and a third quart of beer may be poured on, as before; after which the rhubarb will commonly have lost its virtue. Should the beer first poured on be too much impregnated with rhubarb, and purge too much, another pint may be added presently after the first is drank up.

chiefly to be of milk, rice, semolina, and such like, with light puddings; but above all, plenty of fresh air, and as much exercise as the weak state of the child will bear.

In Dr. Armstrong's second edition, is a pretty long chapter on the hectic fever of teething children, wherein several medicines are prescribed, which the doctor apprehends may be very serviceable early in the disease. He speaks of it as a very common complaint, beginning like other fevers, and gradually becoming remitting; then a slow continual fever, and terminating in a fatal hectic.

It is very probable, that a fever of this description, may be common among paupers, relieved at dispensaries, and may deserve such a name, but, I believe, it will be rarely met with in higher ranks of life; and if so, perhaps, that ought to have been intimated in a popular work. It seems to me, (and Dr. Armstrong, indeed, says as much) to arise from improper food and nursing, joined with a costive state of the bowels, and is therefore, very much the offspring of neglect. When advice is sought for in proper time, it, accordingly, appears to be nothing more than the common fever I have described, arising from a foul state of the bowels, and is easily cured by such medicines as are best calculated to clear the first passages. Should this, however, be neglected, it may degene-

degenerate into a continual fever; but it is not even then peculiar to the age Dr. Armstrong has specified, nor, by any means, the common hectic fever of dentition.

FEBRIS SCARLATINA—SCARLET-FEVER,
WITH or WITHOUT ULCERATION *of the*
THROAT.

WHENEVER the Scarlet-fever becomes epidemic among adults, children rarely fail being attacked by it, in great numbers, and frequently sink under it. This disease has, indeed, engaged the pen of the most able physicians, and has lately been accurately arranged by Dr. Perkins. It is therefore well understood in this day, at least in the metropolis, and needs only on this occasion, to be adverted to as one incident to children, and its most approved method of treatment to be briefly pointed out.

The scarlet-fever with ulcerated throat, has, perhaps, been distinguished in too refined a manner, by some writers, into the scarlet-fever with malignant ulcerated throat, and the malignant sore throat with efflorescence, or redness, on the skin. But such distinction, it is apprehended, is needless, since the experienced practitioner will always be guided by the degree of tendency in the system either to an inflammatory or putrid

putrid diathesis ; and the less experienced will only be perplexed by multiplied by distinctions.

The mildest species of *scarlatina anginosa* should, however, be carefully distinguished from the true inflammatory affection of the tonsils, which the *angina maligna* will sometimes resemble in its first stages : but the genuine marks of the two diseases, and the cast of the epidemics reigning at the time, will direct the attentive practitioner ; who will in less certain cases, take a middle course in his method of treatment, till the characteristic symptoms of either shall become more evident.

There is, however, a scarlet-fever that is not attended with any affection of the throat, and was long ago described by Sydenham,* though not much insisted upon by later writers, which is attended with a harder pulse, and other symptoms of an inflammatory disposition, but nevertheless, in every instance that I have met with, calls for the same general treatment, only more cautiously adapting the necessary cordials and tonics to the degree of fever, especially in the commencement of the complaint.

The *febris scarlatina* of every species begins with the common symptoms of fever, often with languor and disposition to fainting

* See also Withering and Cullen.

ing, sickness, a quick pulse, and pain in the head. The eyes are often inflamed, and where the throat is affected, there is frequently a stiffness of the muscles of the neck very early in the disease, which is soon followed by some difficulty in swallowing. The fever generally increases in the evening, and is often attended with transient fits of delirium ; but some remission takes place towards morning, with sweating ; and on the second, or third day the efflorescence appears on the skin, and generally first on the face, neck, and breast.

The limits of this work allow me only to observe, that the method of cure being directed to the two indications of the general diathesis, and the affection of the throat, the nature and extent of these must ever be kept in view, and the system be duly supported. The throat should be often gargled, or rather syringed, with mucilaginous infusions or decoctions, rendered more or less stimulant ; such as the compound decoction of barley with honey of roses, warmed with the compound spirit of ammonia, tincture of myrrhe, or a decoction of snake-root ; or other such like preparations.

This fever, especially when epidemic, being almost constantly of a low type, the physician must not trust to saline draughts, or other medicines of that class, without the addition of the aromatic confection,

snake-

snake-root, or the bark, in one form or other ; and beside these, should direct a moderate quantity of wine to be given with the food, according to the age and other circumstances of the patient.

Should the affection of the throat therefore to be evidently inflammatory, or should a case occur where the fever may seem to be of that kind, (which may be better ascertained by the hardness of the pulse than any other symptom) it will rarely, if ever, bear bleeding, even in the beginning of the disease, as symptoms of debility generally attend in some period of the scarlet-fever, and will allow only of that middle course of treatment, hinted above.

In a general way, a cordial plan is required throughout the disease, and where the throat is much affected, either with sloughs, or total blackness, the bark is indispensably necessary, howsoever thick and florid the rash, or however hot and dry the skin may be ; the bark, as it were, extinguishing the fever above every other remedy. Young children take it very well, especially the soft extract, dissolved in a strong decoction. Should it be disposed to purge the child, a little of the spirit of cinnamon, or a drop or two of the tincture of opium should be added to it ; or if the child, on the other hand, should be two or three days without a stool, a laxative clyster

should be injected.—If there is much external swelling about the neck, blisters to the part are frequently very useful—Even after the efflorescence has dried off kindly, a gangrene has sometimes seized the whole *palatum molle*.

CARDIALGIA, or INFLAMMATION *of the STOMACH.*

THIS is a disease very seldom met with, I believe in this country, but is common in France, as it appears by a paper read lately before the Royal Society of Medicine, in Paris, by Mr. Saillant; and is said to attack children of four or five years of age.

The *pathognomonic*, or characteristic symptoms of this disease are, violent pains in the region of the stomach, sometimes recurring every quarter of an hour; violent contortions of the child; and the application of a hand to the seat of the disease. Mr. Saillant in the first instance, suspected that these symptoms might be owing to worms, and prescribed accordingly; but that child dying in a few days, the body was afterwards opened, and the presence of genuine inflammation of the stomach, and of a part of the intestinal canal was clearly demonstrated.

The treatment of this dreadful disease is, however, represented as very simple, consisting only in cooling and laxative remedies, which when administered in good time, are said to be usually successful. For this purpose, Mr. Saillant has generally administered the juice of the lettuce, by spoonful, every hour; an idea he took up from Baglivi, who directed the juice of the sow-thistle in the *hemitritis*, under symptoms analogous to those of the *cardialgia*. The juice of the lettuce was generally found to relieve the pains in a short time, and some infants who had been judged to be in a hopeless state, and even at the point of death, were perfectly recovered.

Mr. Andry has done me the kindness of acquainting me, that he has sometimes met with this complaint, in the *hospice des enfans trouvés*, especially during the summer, and at such times as infants have been obliged to continue there without the breast, for the want of wet nurses; who are usually otherwise engaged in the harvest and vintage seasons, as well as during a hard frost. In the instances Mr. Andry has seen, the infants were found to vomit up every thing that was given them, which it is probable, must generally be the case where the stomach is actually inflamed. In such instances, perhaps, fomentations to the stomach, and the use of a warm-bath ought to be made trial of.

S M A L L -

S M A L L - P O X , (I N O C U L A T I O N) a n d
M E A S L E S .

IT were very foreign to the present intention to treat distinctly of these diseases and their several varieties, being in no respect peculiar to childhood, and are noticed only to point out a few principal indications, and to introduce some observations in regard to the properest time for inoculation.

Though the **S M A L L - P O X** is a complaint so incident to the early part of life, that comparatively few children living to the age of eight or ten years, are found to escape it, yet it is not so readily communicated, in the state of *infancy*, as hath been generally imagined, unless by immediate infection.*

P 2

The

* Some evidence of the propriety of this assertion may be gathered from the consideration of there always existing a far greater number of infants within the month, than of children of any other age ; and for the like reason, a greater number of those under a year old, than of such as are two or three years of age. For, every infant that dies at the earlier periods, reduces the number to which those of the more advanced ages might otherwise have amounted ; whereas, all the children who arrive to two or three years of age, having been first infants in the month, and of one year old, the number of the latter periods is not diminished by the death

The poor furnish frequent instances of the truth of this observation. I have attended where children born in an air, saturated as it were, with the miasma of this disease, (as well as of the measles) and even lying continually in a cradle in which another child has died a few days before, have nevertheless escaped the disease, and sometimes when they have slept together in the same bed with one loaded with it. Hence it appears that highly tainted air, and even personal contact, are often insufficient to communicate the virus. Yet we know that infants

death of those of a more advanced age. Now, every one knows how very few infants he has heard of who have received the small-pox, naturally, in the month, or even within the year; though fewer of these are inoculated than of children above a year old. And this exemption from the natural small-pox does not seem to arise from their not being exposed to the ordinary means of contagion, especially among the middling and lower ranks of people who form the bulk of mankind; since the medical men who usually attend such lying in rooms, are very much in the habit both of visiting the small-pox, and of inoculating, all the year round: and even in the higher ranks of life, if gentlemen in the general practice of physic happen to be consulted, the chance of their visiting at the same time infected patients, is not so small as may be imagined; not to speak of the probability there is, that some one of the numerous visitors, during the month, may by accident or otherwise, have been in some infected house in the course of the day in which their visits may be made.

infants are very easily infected, receiving the small-pox by inoculation as readily as adults; though neither are at all times equally susceptible of it. Perhaps this latter circumstance may not always be sufficiently attended to; the mode of inoculation being often blamed, when its failure may be owing to the indisposed habit of the child. Possibly, on this account, it may not be perfectly safe to urge it, at such a time; at least, instances are not wanting, where twice introducing the virus having failed, an infant has had the disease very severely, and even fatally, upon its being repeated a third time.

But in whatever way the small-pox or measles may take place, they are to be treated as in adults, with but little other difference than what every practitioner is well acquainted with, that of greater caution and tenderness; as infants cannot bear the powerful antiphlogistic regimen and evacuations, often proper for the other.*

In the treatment of the MEASLES, not only ought children's bellies to be kept open throughout the disease, but unless they are very young, they will bear and even require one or more bleedings, at any period of it when the symptoms indicate its propriety.

P 3

And,

* Ex toto, non sic pueri, ut viri, curari debent.
Celsus. *Lib. iii. cap. 7. p. 134.*

And, indeed, the cure of the secondary fever, however long it may continue, will turn upon repeated bleedings, laxatives, and a total abstinence from wine, and all animal food.

I have now only to drop a word or two on the subject of *Inoculation*, because parents are very apt to fall into great mistakes respecting the age, and circumstances most proper for this operation.

It is too common an opinion that a very young infant, sucking at the breast, is the fittest subject for inoculation, and medical people have some difficulty in persuading parents to the contrary. Children are then said to be clear from humors, their blood mild and balsamic, their food innocent, and they are free from all violent passions of the mind. But all these advantages may be counter-balanced by the delicacy of their frame, their disposition to spasm, and their inability to struggle with a severe attack of the disease, if it should chance to fall to their share. And such, indeed, are the facts; infants usually have the small-pox very lightly, whether taken naturally, or from inoculation; though in both there are instances of their expiring in a fit at the time of the eruption; and they seldom get through the disease, if they are full, or it proves of the confluent, or malignant kind. And this furnishes a peculiar objection to inoculating

inoculating infants at the breast, which arises from their necessarily lying so much on the arm of the mother, or the wet-nurse, especially in the night ; the heat exposing them to a much more copious eruption, than children who are weaned. This I have seen clearly exemplified in the instance of a child whose mother could suckle only with the right breast ; the consequence was, that the left side of the child was perfectly loaded with the eruption, (though the pock was of the distinct kind) whilst the other had only a very moderate sprinkling. The child, however, sunk under the secondary fever at the end of five or six weeks, though turned of two years old ; the *only* child I have known to die of inoculation at so advanced an age.

I am aware that many children are inoculated very young, and even in the month, and generally with very good success ; but the frequency of this practice, among eminent surgeons, its owing to the urgent solicitation of parents, and their fear of contagion. I cannot therefore avoid saying, that however few may die under inoculation, under any circumstances, the fact is, that the far greater proportion that I happen to have had an account of, is amongst infants under six months old.

From this view of the matter, it is pretty evident, I think, that this operation ought,

ought, usually, to be postponed to a later period, which is pointed out by the child having cut all its first teeth. To which may be added the observation just made, that infants are not much disposed to take the small-pox naturally, and that fifty children die under the age of two years, of other complaints, to one that dies of the natural small-pox. Should it, however, be in the same house, or prevail in the neighbourhood, and the parents find it difficult to remove the child out of the way, it may run a less risk in being immediately inoculated, as that operation is now so well understood, and successfully conducted, than by taking the chance of escaping the infection, or of recovering from the disease, if it should happen to take place.

CHICKEN-POX.

FOR the reason given in the former chapter, I shall be very brief on this head. The complaint, nevertheless, merits a few words, not only because more incident, perhaps, to children than to adults, but also that parents are often at a loss to distinguish it from the mild small-pox : which it sometimes exceeds in violence, and is now and then even attended with danger. This is, indeed, not often the case, and the disease has

has therefore been very seldom noticed by medical writers; and even Dr. Heberden, who was among the first that obliged the public with a distinct account of it, says he never saw any person with so many as three hundred pustules over the whole body. Physicians, indeed, as he observes, are not often called to visit patients under a complaint usually so trifling, or a gentleman of his long and extensive practice, would have met with instances in which it must have appeared of more consequence, as will presently be noticed.

It is from this disparity, I apprehend, that this disorder is sometimes denominated the *swine-pox*, which is only a ranker species of the disease, in which the symptoms may run higher, as well as the pustules become much larger. In this case, I have known the head and face as much swollen as I have ever seen them in any distinct small-pox, however full, and the pustules containing a yellow, and seemingly purulent matter, with highly inflamed bases, and exceedingly sore; and these have formed a complete mask on the face, after the turn, as is often seen in the small-pox. One such patient whom I was called to visit, was about fifteen years of age, of a plethoric habit, but very healthy; and what makes it very certain, that this complaint could not be the small pox, is, that the young gentleman died of that disorder

order a twelvemonth afterwards, and possibly owing to its being neglected in the beginning, from an idea that the former illness had really been the small-pox. The latter mistake arose from an improper answer having been then made to my enquiry after the day on which the eruption had first appeared (as I was not called in to visit him till the disorder was at the height); a mistake the young gentleman's mother had a perfect recollection of after I was gone, and of which I reminded her upon being called to visit him in the small-pox, only the day before his death.

This case strongly verifies the remark of Dr. Heberden, that this complaint can, in some instances, be distinguished from the small-pox only by its quicker progress towards maturation, and the shorter duration of the pustules; a watery vesicle always appearing on the second or third day from the eruption; and the turn, at the farthest, taking place on the fifth.

The treatment of it differs nothing from that of the mild, distinct small-pox; but it more rarely calls for much attention, and only when a patient may have it very full.

A G U E.

THIS is a complaint so well known, that it seems unnecessary here to enter minutely into a description of it. It is sufficient to say, that it consists of repeated cold and hot fits regularly succeeding each other, with one or more well-days between them ; in which interval the sick passes a high-coloured urine, that deposits a red sediment.

It, perhaps, partakes more of a nervous affection than other fevers may do, and is known to be endemic in some flat marshy situations, but is most frequent in the spring and fall of the year ; in the former of which it is generally easily cured, and is even sometimes salutary. Autumnal agues, on the other hand, especially in the country, and amongst the very poor people who feed coarsely, will frequently continue a long time, and return again the next autumn ; whereby the constitution becomes considerably impaired. In such instances the legs are apt to swell, and more especially the belly, which becomes hard, particularly on the left side, and has been termed the *ague-cake*. This tumefaction, however, instead of being a bad sign, as might be suspected *a priori*, is a very favourable one, and indicates the recovery of the patient.

This

This circumstance is noticed by Sydenham, and like other observations of that attentive practitioner, is a very just one, and was doubtless, the result of his experience. The hardness is probably owing to an infarction of the spleen, and usually subsides in the course of a few months, especially upon the use of moderate exercise, and a generous diet. It may be prudent, however, to administer small doses of calomel, and afterwards light bitters, adding likewise chalybeates, if the habit of the patient seems to require them, and there are no symptoms of morbid affection of the *viscera*.

It were needless to enter more largely into the subject, and it is equally foreign from the present intention, to be more particular in regard to the cure of this oftentimes very troublesome complaint, as it would lead me farther than would be compatible with the design of this work. Some notice of it, however, is taken because, though no more peculiar to children than the last mentioned diseases, yet it may be said, that there are comparatively very few children who have not suffered by it during the years usually passed at school.

The ague, indeed, attacks every age, so that infants even under a year old are very liable to it, whenever it rages among adults. It is with a peculiar view to patients of the former class that the following directions are

given, the bark being usually a specific for older children and grown people ; to whom, however, it is generally proper first to administer a vomit, and one or more doses of physic.

In a state of *infancy*, the ague is often owing to, or connected with a foul state of the bowels and obstruction of the gall-duets, and is frequently accompanied with worms, or such a state of the alimentary canal as affords a proper nidus for them.

The *tertian*, or more common ague, at this age generally yields to purges of the basilic powder, or calomel and rhubarb, given on the days between the fits, and small doses of Dr. James's powder on the return of the fever. Should this fail, a vomit should be administered an hour or two before the next cold fit is expected, if the powder should not already have had that effect. In older children, the common saline draught, taken once in six or eight hours, will frequently succeed, as will warm bitters, and medicines that promote and keep up perspiration. A linen waistcoat with fine powder of bark quilted within it, may be worn by infants next their skin.

Amongst *popular* remedies,* is a tea-spoonful

Q

spoonful

* It is hoped, that a desire of enabling readers to assist their country poor, will be admitted as an apology

spoonful of white resin in fine powder, mixed with the like quantity of pounded loaf-sugar, taken a little before the cold-fit, and repeated afterwards night and morning. Poor people, or such as live in the country at a distance from medical help, may make trial of it with safety, and with as good prospect of success as any other remedy I know of, having found it successful even where large doses of the bark have failed. Such kind of remedies for this disease are numberless ; I shall, however, mention another, which, though as anile as any, seems to have been very often successful ; and is nothing more than the spider's web, rolled loosely up to the size of a child's marble, and washed down with a little warm wine and water, or camomile tea, before the cold fit is expected : the child should then be put into a warm bed, and perspiration be encouraged.

Crude salt ammoniac, in the dose of ten or twelve grains, for children of five or six years of age, has sometimes cured this troublesome complaint ; but may not be proper for delicate constitutions. Myrrhe is a better remedy for such, given from four to eight grains, before, or during the cold-fit, and as much cream of tartar, every two or three

logy for this and other similar passages met with in this work.

three hours, during the fever. Pepper, and likewise alum, are frequently given with success at this age, the former from five to ten grains; the latter from three to five, joined with the like quantity of nutmeg, three or four times a day in the absence of the fever. Another good remedy is flowers of brimstone, given in the quantity of a table spoonful in a glass of brandy, before or during the cold-fit; this is a proper dose for adults, but I have never administered this medicine to children. I shall close this list of remedies with the following from Dr. Kirkpatrick, which is a very good one for patients no otherwise averse from the bark, than that the stomach will not bear it in large doses.

Take of the fresh sassafras bark, of Virginia snake-root, of roch-allum, of nutmeg, of calcined antimony, and salt of wormwood, of each one dram: to these, well rubbed together into a fine powder, add the weight of the whole of the best Peruvian bark, then add three or four drops of the chemical oil of mint; and with syrup of saffron make all into the consistence of an electuary. This is to be divided into twenty-four doses, one of which may be taken by children of eight or ten years of age, every four or six hours, while the patient is awake.—To make this or any other preparation of the bark sit better on the stomach, the patient should first

eat a bit of bread, or other light food, that the bark may not be received into an empty stomach.

HOOPING-COUGH.

THE Hooping-cough is a disease unknown, probably, to the old writers ; the Greek and Arabian physicians make no mention of it, and indeed it has not been well understood in any part of Europe, till of very late years. Even Willis supposed its seat to be in the breast, but Harvey makes it a disease of the stomach, and Astruc an inflammation of the *larynx* and *pharynx*, produced by an original affection of the former, from indigestion. He seems to have been one of the first that discarded the use of oily and pectoral medicines, (which indeed some practitioners have been weak enough to revive) ; though he advised bleeding too indiscriminately.*

This disorder furnishes another proof of the observation made on the impropriety of submitting the complaints of children to improper hands—the care of old women, and frequent change of air, being all that this disorder is thought to require : but perhaps the maxim was never worse applied. There is,

* See his *Diseases of Infants*.

is, indeed, a milder sort of hooping-cough, as there is of every disease, that calls for very little medical assistance ; and it is always in such cases, that matrons and nurses acquire their credit. But there is no complaint of children with which I am at all acquainted, in which medicine is at times more evidently serviceable, than a bad hooping-cough.

This disease is certainly highly infectious, and one of those that never appears a second time. It often begins as a common cough, and is attended with the usual symptoms of having taken cold, but in its progress soon becomes more severe : the longer it may be before it plainly discovers itself, by the *hoop*, the more favorable it is likely to be. The fits of coughing are attended with a peculiar noise, not ill-expressed by the term *hoop*, and is sufficiently known to every parent who has ever had a child severely attacked by it, and to whose feelings, it proves one of the most distressing complaints their children are liable to. A flux of rheum frequently comes from the mouth, nose, and eyes, and the food is thrown up, together with a viscid phlegm, (often in great quantities) in the coughing fits ; between which the child generally appears to be perfectly well, and eats its food very heartily. These are the more common symptoms, but when the disease is violent, and has continued for some time, they be-

come greatly aggravated, especially in the night, and the child will seem almost strangled in each fit, and the face and neck becoming perfectly livid, till by a violent effort, attended by a hoop, it recovers its breath ; the blood will likewise sometimes rush from the nose and mouth. When taken in time, and properly treated, it is, however, rarely fatal, and scarcely ever but to young infants.

Dr. Armstrong has strongly recommended wine of antimony as the proper and only remedy* for this, as well as for almost every other complaint of infants, which, however opposite, in this case, the remedy may be, in a general way, is saying no more than that emetics and gentle laxatives are useful, which all modern practitioners are agreed in ; and in which view, Dr. James had long before recommended his powder. But the fact is, that many other means are equally useful, and not unfrequently indispensably necessary, unless we should suffer the patient to be strangled in a fit of coughing, or fall into a decline, from the injury which the lungs must endure by a frequent repetition of such violence.

This must be exceedingly apparent from the above history of the disease, the various symptoms

* In his second edition, many other means are recommended.

symptoms of which, certainly demand a considerable diversity in the treatment. The more important ones are, the state of inflammation, sometimes inducing peripneumony ; the quantity and viscidity of the phlegm ; and the spasmodic affection, and danger of suffocation ; together with the exhausted state into which the patient may be reduced by the long continuance of the disease. If the breathing therefore be difficult, a blister is indicated, which if the child is not very young, may be kept open for two or three weeks. If the face should be very livid and swollen, during the fits of coughing, if any vessel give way, or the patient be plethoric, and more than two or three years old, or should be hot between the paroxysms, a little blood ought to be taken away, (which is sometimes inexpressibly useful) and a saline draught be administered, every six or eight hours, till the fever shall disappear. Otherwise, if none of these symptoms attend, bleeding does not seem, in general, to be indicated, but may rather have a tendency to protract the disease, by increasing the spasmodic disposition, and by weakening the patient.

If there be an inclination to vomit, it ought to be encouraged, unless the phlegm be brought up with great ease in almost every fit of coughing, in which case, nature seems able to accomplish the business herself

self, and it will then oftentimes be sufficient to keep the body open by the mildest laxative medicines. But it very rarely happens, unless in infants at the breast, that some kind of emetic is not necessary in the first stage of the complaint. The disease, indeed, very frequently requires no other medicine, for such usually keep the body open at the same time, which it ought always to be, but not to such a degree as to weaken the patient. For this purpose, perhaps, wine of antimony may be as proper as any thing, when it answers the end, but it is less certain than tartarised antimony, and is not always, I think, of the same strength. The latter is also rather tasteless, and will therefore have an advantage over every other medicine, when we are prescribing for children. Two grains of this in two ounces of water, with the addition of a little sugar, is a medicine to which children will never make any objection. From one to two teaspoonfuls, given to a child of a year old, (varying the dose according to the age) will in general, act sufficiently; and may be given upon an empty stomach, every day, or every other morning, according to the strength of the child, and violence of the disease. If the cough should happen to be more violent at any particular time, the emetic should be given a little before the paroxysm is expected. Or perhaps a still better

better method, at least in some cases, and particularly in very young children, is, to give the tartarised antimony in smaller doses, together with a few grains of magnesia, or prepared oyster-shell powder, (according to the state of the bowels) three or four times a day, so as to keep the stomach in an irritable state, as shall secure a gentle purging every time the fits of coughing come on. But in whatever way this medicine be directed, it will prove of no service if it does not vomit, and must therefore be given in a dose suitable to the strength of the stomach, which is exceedingly various, not only at different ages, but in children of the same age, and of the same apparent habit of body. If the tartarised antimony has any advantage of the wine, it has much more over every other emetic I have made use of, the ipecacuanha, and oxymel of squills, being exceedingly unpleasant, and the latter likewise uncertain.

Such a plan is all that will be necessary in the common hooping-cough ; but it has been said, there are many cases which will require other means, and demand all the skill of the experienced physician. The cough, for instance, will sometimes increase not only for days, but for weeks together, and the strangulation be exceedingly alarming. In this case, the milk of gum ammoniacum, but especially asa foetida, frequently proves

proves a sovereign remedy, and though exceedingly nauseous, many children will take it tolerably well for the short time it appears to be absolutely required; and when they will not, it may be administered by way of clyster, dissolved in two or three spoonful of penny-royal, or common water. These medicines, however, will be improper in the very advanced stage of the disease, when attended with hectic heat, hemorrhage, or other phthisical symptoms; a caution equally necessary in regard to the bark, which in the absence of these symptoms, and after the stomach and bowels have been well cleansed, is frequently very useful at the latter stage of the disease, when the patient has been exhausted by its long continuance. Upon the same plan with the afa foetida, camphor and castor are frequently beneficial, and have the advantage of being less nauseous, but I think are proportionably less powerful. I take no notice of tincture of cantharides, though strongly recommended by some writers, because I have had no experience of it myself, and indeed have never found any necessity for trying it.

It will sometimes be of no small service, to rub the hands, and the soles of the feet, with the compound spirit of ammonia, several times in the day; or the spine of the back, and the pit of the stomach, with oil of mace, (so called) or oil of amber; but

as the smell of the latter is very unpleasant, it may be dispensed with where the spasms are not exceedingly urgent. But when they are so, this oil is sometimes very useful, particularly when administered internally, and children of three or four years will often take a few drops of it very well, mixed in a spoon with a little brown sugar; from which I have seen as evident advantages, as from any medicine whatever. In a little child of my own, it immediately gave a turn to the complaint in the most violent hooping cough I ever met with, and after almost every other medicine had been tried to no purpose; so that from the hour she took it, the complaint was no longer alarming, nor tedious of cure. But frequently, no antispasmodic is equal to opium, in this, as well as in other diseases. With this view, two or three drops of laudanum, and, to younger children a small tea-spoonful of syrup of white poppies, or to grown people from five to ten grains of the pilula è styrace, taken at bed-time, will not only quiet the cough, and remove the strangulation during its operation, and procure the patient some rest, by which the strength will be recruited, but in many cases, seems to have a kindly operation on the disease itself. It is in this way, I doubt not, that the cicuta once seemed to gain some reputation, but I believe, it is no other-

otherwise a remedy for it than an anodyne. From a mistake, however, in this respect, the strong manner in which this medicine has been recommended by Dr. Butter, has certainly done harm ; as I have known many people depend solely upon it in very bad cases, to the exclusion of other remedies evidently indicated, which would, at least, have shortened the disease.

If obstructions in the lungs be suspected, blisters should be applied, and recourse had to gently deobstruent medicines ; but at this period, the cure is chiefly to be accomplished by a vegetable and milk diet, (especially asses milk) pure air, and gentle exercise.

The cough after having disappeared for a week or more, is sometimes found to return with great violence, especially upon taking cold ; but a gentle purge or two, a vomit, and abstaining from heavy food, generally remove it in a very short time. If these cautions should be neglected, the cough will often prove extreme tedious.

The only thing that remains to be spoken of, is the proper diet, which for children even of five or six years of age, ought to be little more than milk and broths. These are easily digested, and will afford them much more good nourishment than any kind of meats, and will sit much lighter on the stomach than puddings, or pastry, the latter

of which is exceedingly injurious. The objection made by old nurses against milk, that it breeds phlegm, is utterly founded in a gross mistake that cannot be too frequently controverted. It has, indeed, been sometimes mentioned by a certain class of medical people, but the objection is so unphilosophical and unlike objections of thinking men, that it scarcely deserves a reply. Should the milk, however, be found to curdle remarkably soon on the stomach, a little common salt, Castile soap, or testaceous powder, may be added to it occasionally; or where it can be afforded, asses milk may be substituted for cow's. These light nourishments soon pass out of the stomach, or if brought up by coughing fifty times in the day, (as I have known them to be) a child of four, or five years old, will immediately take more of them with avidity, and will be better supplied in this way, I mean by taking a tea-cupful at a time, than by making set meals, or taking a large quantity at once. If the child should be thirsty, a little apple-water, toast and water, and other thin drinks, will be pleasant and useful. Patients treated in this way, will get through the complaint, if not severe, in a very short time; and where it proves violent, a child will struggle through this long disease without any considerable loss of strength, or will be very soon recruited by a decoction, or cold infusion of

the bark, together with gentle exercise, and a little country air, the best restoratives after every kind of disease. Such at least has been my own experience in this tiresome complaint, by which I know parents are usually as much alarmed as by any incident to childhood. But unless it has been long neglected, or taken place in the month, I have never experienced it to be fatal, and then only in one instance, though I have known eight or nine children in a family labouring under it at a time; and I wish to mention this as an occasion of consolation to those who may have been led to think more fearfully of it.

SPASMODIC-COUGH.

VERY much a-kin to the former complaint, is a troublesome cough, properly enough denominated spasmodic, or convulsive. In a certain state of the air it is sometimes epidemic, and young children, and even infants in the month, are then attacked by it, as well as adults. The irritation seems to be about the *larynx*, (or superior parts of the throat) or only a very little lower down, and is very distressing, at the time of coughing; but the patient, though an infant, seems immediately afterwards to be quiet and comfortable. This cough is not usually attended with fever, nor other ordinary symptoms

a common cold, nor is it to be relieved by the like means ; the cough remaining dry and hoarse under the use of pectoral remedies.

Children of four or five years old may be cured by the cicuta, and gentle laxative remedies ; but the former being less adapted to infants in the month, such may take a few drops of the syrup of white poppies, three or four times a day, and their bowels be carefully kept open ; which means seldom fail of removing the complaint in three or four days.—Should the syrup constipate the bowels, or otherwise disagree, Bates's Sp. Sal. ammon. succinat. may be tried in its stead ; which is a good medicine in other dry convulsive coughs, where there is no fever.

THE CROUP.

THE Croup, or acute asthma, is a complaint somewhat similar to the two former, to which, perhaps, children only are liable, called therefore *asthma infantum spasmodicum* ; also *suffocatio stridula*.* It rarely attacks those who have arrived to the age of ten or twelve years, and chiefly seizes infants newly weaned ; at which period it is

R 2

the

* *Fsquinarie membranuse.*

the most severe. Dr. Millar is, perhaps, the first person in this country who has written particularly on this complaint ; but it has been mentioned by some German writers, and well described by them long before it was noticed in Britain.

Remote causes of this disease may possibly be the lax fibre of children, the abundance of moist humours natural to them, and the vast secretion from the bronchial, or air vessels ; and perhaps the change of food from milk, which is easily assimilated, to one requiring more digestion.

The prophylaxis, or mean of prevention, is the same as in most other diseases peculiar to children. If this complaint arise from the laxity of their solids, the quality of their food, and the natural weakness of their organs of digestion, the general means of prevention, as well as of cure, will be readily indicated.—Their food should be such as may be easily digested, and may prove nourishing. A due proportion of milk and broth, * taken separately, whilst children are very young, or light meats when they become older ; good air and exercise, and a careful attention to the state of their bowels.

The

* A diet of milk only, even in adults, when long persisted in, though otherwise proper, will create flatulencies. *Berry on Digestion.*

The proximate cause of this complaint is a morbid secretion of a viscid mucus in the *trachea*, adhering so firmly to its sides as to impede respiration. The quantity and viscosity increasing, gradually lessens the diameter of the wind-pipe, and if it effect this to a considerable degree, the disease must necessarily prove fatal.

The Symptoms of this complaint are spasmodic, being such as would be produced by any other matter constantly irritating the *trachea*, and diminishing its diameter. They will therefore very much resemble those of the nervous asthma, but the complaint differs materially from the common spasmodic asthma of adults, in the peculiar croaking noise made in respiration, (from whence it has its name) and in the violence of the paroxysms ; which, however, leave no apparent indisposition, save a certain dulness, and a sense of fear, in children capable of expressing it. The fits frequently terminate by sneezing, coughing, or vomiting, and return without any regularity. It is attended with a quick pulse, laborious breathing, a sharp, and shrill voice, and a flushed countenance, which grows livid during the paroxysms, or fits.

The disorder is probably inflammatory in the beginning; and though this period seems to be very short, yet should the physician be consulted as soon as the disorder

might be ascertained, both emetics and bleeding might be useful; but after the *croup*, as well as difficult respiration have thoroughly taken place, it would be improper to have recourse to any debilitating means.

It does not always seem to be an original disease; being sometimes a consequence of bad fevers, and of some chronical disorders that have reduced the patient's strength. It frequently appears to arise from the same causes as the malignant sore throat, only having its seat lower down, and is therefore more dangerous. And it has, in several instances, accompanied the malignant sore-throat, as may be known in the early stages of that complaint, by the croaking noise peculiar to the croup; and, I believe, is in such instances generally fatal.

It is divided into two principal stages; in the latter of which no method of treatment has appeared to be effectual, but medicine is never more efficacious than in the first, if the disorder be not combined with some other, and it be taken in time, though the crouping may be very considerable. This I saw remarkably exemplified in a little boy of my own, who was nearly cured in two days.

The sovereign remedy seems to be *asafœtida*, which ought to be administered both by the mouth and in clysters, according to the

the exigency of the complaint ; and in the first instance, before any marked inflammation has taken place, may be given very freely. Antecedently to this, however, it may often be prudent to apply a leech or two to the throat, especially if there be any perceptible fulness of that part, and a blister to the nape of the neck. At the close of the complaint, and to prevent a relapse, the bark proves highly serviceable, and will also restore the strength of the patient ; returning, however, to the *asafœtida*, if there should be any threatening symptom of the asthmatic affection, which is not uncommon. Should a patient suffer two or more relapses, to which a moist air will peculiarly expose him, some discharge, by a blister, or issue, ought to be procured, and continued at least for some months.

The French writers depend much upon emetics, and afterwards lenient purges ; and to prevent a return, advise aperitives, stomachics and tonics, particularly preparations of steel, and natural chalybeate waters.

I have examined the *trachea* after death in only one patient, in which I found the precise appearances described by Dr. Millar ; the wind-pipe being lined by a tough viscid coat, so as mechanically to close up the passage.

RICKETS.

THIS is a late disorder in Europe : Aft
truc observes that England is said to be
the part in which it first made its appearance,
and that it was then described by Glisson
and Mayow ; but he thinks it probable,
that it appeared at the same season over all
Europe, through the coldness of the wea-
ther. It was named *rachites*, from the
Greek, implying that the *spina dorsi* is par-
ticularly affected by it ;* though it rarely
attacks the spine till the disorder is far ad-
vanced.

It was first noticed in the western parts of
England, † about the year 1628, § and is
said

* From this circumstance, it has been supposed to have been known in the time of Hippocrates ; but his remark (*Aphor.* § 3. 26.) is certainly too concise to establish the sentiment ; as it is simply observed, that among other complaints, infants after the period of dentition, are liable to *παριθυμία*, *παρδυλετούς κατά τον ειών αγέτης*. --In Mons. Le Febvre de Vil-
lebrune's Greek edition of the *Aphorisms*, there are, however, some observations tending to convince, that this disease is of an older date, by some centuries, than it has been generally imagined.

† See Glisson. § Primerose.

said to have taken place upon the increase of manufactures, when people left the villages and husbandry, to settle in large manufacturing towns ; where they wanted that exercise, and pure air, which they had enjoyed in their former situation, and employments.

It may therefore frequently arise from unhealthy parents, especially from mothers who pass too sedentary a life in a bad air, and feed upon a weak and watery diet : from children's food being weak, watery, or too viscid to be properly digested ; but above all, perhaps, from bad nursing, and the child's being left wet, dirty, or exposed to a cold moist air,* without sufficient covering ; from want of proper exercise, and from close and crowded apartments. Or lastly, from the habit of body being reduced by the long continuance of almost any of the complaints hitherto considered.

The usual symptoms of rickets are soft flesh ; bloated, or very florid countenance ; weakness ; dislike to motion ; with enlargement of the belly, head, and joints. The wrists and ankles enlarge first, afterwards the back, and breast-bones ; and indeed all the bones swell and become soft, especially the

* It is remarkable, that this complaint is scarcely known in very hot climates.

the more spongy ones. The pulse is quick, and feeble, and the appetite and digestion usually bad. Teething is commonly late, though not frequently difficult, but the teeth often rot early, and fall out. Great acuteness of mind has been observed, in this, and some other chronical complaints. It seldom attacks children before they are six months old, or above two years.

As it appears to arise from a general weakness and relaxation, the indications of Cure are to brace and strengthen the solids, and to promote digestion, and the formation of good chyle. These ends will be promoted by wholesome food, suited to the age ; good bread, or biscuit ; dry food ; and roasted meats, rather than boiled ; with a little red Port wine. Should the child be too young to eat flesh meats, its diet ought to be chiefly of rice, millet, pearl-barley, falep, and semolina, with spices, if it be not inclined to be feverish. It must also have good nursing, and especially exercise and air, without being kept too hot or too cold : without a very strict attention to these, medicine can be of but little service. If the child is of a gross habit, the eighth part, or a quarter, of a grain, of ipecacuanha powder, taken once or twice a day ; gentle pukes, and very brisk purges, especially of the powder of scammony with calomel prove of use. In such habits, all foundation of a cure

cure must be laid in reducing the belly to its proper size, and in strengthening the stomach. If rather delicate, the cold-bath is often of more service than any thing else: but this should not be entered upon in winter, nor without previous purging. Frictions afterwards with flannel and aromatic powders, or the fumes of frankincense, mastic or amber, especially on the back and belly, will farther tend to strengthen the habit. Besides these, may be given the cold infusion of bark, and other bitters, or small doses of the martial flowers, or the *vinum ferri*: but a good diet, air, and exercise, especially riding on horse-back, are of the utmost consequence, and if duly persevered in, will often effect wonders. This is one of those chronical or lingering complaints which seem to be gotten the better of by time, and like the following one, wears itself out, as it were, (if the vital parts do not happen to be affected) and to which the abovementioned means will greatly contribute—*Sæpe Pertinacia Juvantis, Malum Corporis vincit.* CELSUS.

SCROFULA, or KING'S EVIL.

THIS is primarily a glandular disease, though in its progress it attacks the adipose membrane, the eyes, the muscles, tendons, and even the bones themselves, especially the joints. It seldom makes its appearance before two years of age, nor later than ten or twelve, (except it be in regard to affections of the eyes) though there are a few exceptions in regard to the latter period, and it then often proves fatal, by falling on the lungs, or other noble part. It is frequently observed to follow other disorders, particularly the small-pox, whether taken naturally or from inoculation, but more especially the former; also the hooping-cough, measles, teething, rickets; and many other disorders already mentioned. Hence, the nature of this disease is better understood, as it so often falls upon weak and tender habits, either originally of a lax fibre, or worn out by previous diseases; or is gradually brought on by a heavy, indigestible, and bad diet, or a low, wet, and unhealthy situation. It is, however, sometimes found to be hereditary, but will very frequently lie dormant for two or three generations, and afterwards appear with redoubled violence. It is often attended, or

rather preceded, with a peculiar look about the eyes, which are generally large, and a thickness of the upper lip ; and sometimes proves a source of ill-health through life, but is not usually fatal in the first instance. Long before the external glands become affected, especially in young subjects, the belly is observed to be hard and enlarged, and after death, the mesenteric glands, and even the pancreas have been found diseased.

Though this is a very unpleasant complaint, and one that does not often admit of much relief, yet it frequently disappears at the time of puberty (and sometimes sooner) especially in females ; but whether this be owing to the increased strength of the solids, or to other changes in the habit, naturally happening at that period, is not an inquiry proper for this place.

Although I thought it necessary to mention this disease amongst others to which the state of childhood is liable, I am sensible how difficult it would be to point out any thing like an adequate remedy. At its first appearance, however, bitter, or mercurial purges, are sometimes of use, as are also antimonial vomits, and sometimes saponaceous medicines. But when the disease is confirmed, lime-water, and decoctions of the woods, together with crude antimony, bark, and steel, with wine, and a generous diet, are, I believe, most to be depended upon

upon as internal remedies ; from some of which, I have seen no inconsiderable cures effected. But in this, as in other chronical complaints, good air and exercise are of the greatest importance. Indeed, the advantage of exercise in this disease is so great, that I wish to lay a very great stress on it. But then it must be daily had recourse to, and, by degrees, be so considerable, as to render the patient every night sensibly fatigued. Thus, I have known riding behind a carriage, (as I have noticed in another work), almost without the aid of any medicine, entirely remove the complaint.

When there are external tumors, I am satisfied that the opinion I have already given to the public, in a larger tract on this complaint, is both rational and safe ; and that whenever they are at all disposed to come forward, they ought to be brought to as speedy a suppuration as is possible, and be treated as I have there recommended. The scrofulous virus when thrown on the surface, so far resembles the cancerous, according to the description of the ingenious Mr. Hunter, that it is inclined to spread to a considerable extent ; but as tumors of the former class will bear rougher treatment than the latter, I am confident that much benefit may arise from the use of external stimulants, by stopping the progress of the disorder in the neighbouring parts, as well as

as by invigorating them, and thereby disposing the ulcers to heal. Also light frictions with mercury, so as to make it pass freely through the lymphatics of the distempered parts, without affecting the system, have in a course of time been beneficial, and deserve to be brought into a more general practice than they have hitherto been.

I have lately had farther reason to be confirmed in the above opinion respecting stimuli, from observations communicated to me by Mr. Partington, who since the hints I threw out in the afore-mentioned work, has made use of electricity with very good effects, in these, as well as other cold tumors and ulcers I had mentioned; which have all healed very kindly, in consequence of this stimulus to the parts. When scrofulous ulcers have been healed, and only some small tumors remain, I have experienced very good effects from the external use of as strong a solution of camphor in oil of almonds as can be made, which has dispersed them very soon; and I have found it the best remedy, and a very successful one, in the cure of the incipient bronchocele, though enlarged to the size of a turkey's egg; and requires only to be very well rubbed into the parts, three times a-day. The patient should at the same time take a dram or two of the *tartarised natron* every morning.—I shall only add, on

the head of scrofula, what is very well known, that sea-bathing, alone, sometimes effects a perfect cure. Should the child therefore have several scrofulous tumors, or the habit be conceived to be much affected, trial should be made of the sea, in whatever manner it may be determined the tumors shall be treated, if not dispersed by sea-bathing.

HYDROCEPHALUS, or WATERY-HEAD.

THIS complaint is distinguished into the *external*, and *internal*; in the former, the water lies upon the surface of the brain, over the *pia mater*, but in the latter it is seated much deeper, within the ventricles. The *external* makes its appearance at, or it is said, in some instances, soon after birth. But children with *hydrocephalus externus* are more commonly still-born, though I have known one arrive to ten years of age, * who was then unable to walk, or even to sit upright in a chair. From a very recent instance, however, I have learned, that when no symptoms of *hydrocephalus* appear

* See *Medical Communications*, vol. I, in which there is mention of one attaining the age of 29, and another, 45 years, who were then both living; the former did not appear to have any enlargement of the head for three weeks after birth.

pear at the birth, the water is *sometimes*, at least, contained within the ventricles of the brain: and from the circumstance of no children living long with an *internal hydrocephalus*, but such whose heads enlarge within a few months after birth, I should suspect the disorder has, in such instances, taken place in the womb. The *fætus*, at this time, enjoying only a kind of vegetative life, may arrive to maturity under such a disease; various instances being met with, in which full grown *fætuses* have had neither head, nor heart, nor lungs. Accustomed to the above-mentioned disease, we may presume such infants more likely to live for a certain time with water in the ventricles, than those in whom the disease takes place suddenly, after birth.

In the instance alluded to, the child's head began to be sensibly enlarged when the infant was about four months old, and the child lived to the fifth year, unable to walk, or even to support its head. Upon a careful examination of the parts after death, the water, to the quantity of three pints, as I am informed by the surgeon, was evidently contained within the ventricles: which were so stretched as to compress the brain in such a manner, that it appeared only like a smooth thick membrane within the *dura mater*; and of all the solid contents of

The *external hydrocephalus*, at whatever period it may commence, has always been esteemed a fatal, as well as most distressing complaint ; but I have been informed, that where the disorder has not been very manifest at the birth, blisters on the head have sensibly diminished its size. These should be applied, successively, to different parts, especially along the top of the head, in the course of the *longitudinal sinus*, so as to keep up a constant discharge ; which from the good effects in two or three cases, when had recourse to in good time, may possibly, in some instances, effect a perfect cure : at least, the advantages already observed are sufficient to justify the attempt, in a disorder hitherto esteemed incurable.

Of the *internal watery-head* it may be proper to treat more largely, though I have nothing really new to offer in regard to the cure. It usually takes place between the age of two and ten years ; is a like melancholy complaint with the former, and the method of treatment not yet well established ; and as it can hardly be ascertained whether any have recovered from it, (the certainty of its existence scarcely being known but by examination after death,) it is not likely that a very determined, and successful treatment will shortly be settled. It may probably

probably arise from falls and blows on the head, or from an original laxity of the brain; from chirrhous tumors and excrescences within the skull; a watery state of the blood, or a lingering illness. It appears, likewise, to be a family complaint in some instances; for I have known six children, born of the same parents, die successively of it at the age of two years, five of whom were afterwards opened.

The attack is sometimes very sudden; but the complaint more commonly begins with the appearances of slow fever, especially in older children, with debility of the arms, and pains in the limbs, especially the upper part of the neck. After a while, the child is suddenly seized with pain in the fore part of the head, and retches: It becomes heavy and dull; can bear no posture but that of lying horizontally; the pulse becomes irregular, but usually very slow; in the progress of the disease the faculties and senses are impaired, and the eyes are offended by the light; the patient sees objects double, and becomes delirious. As the disease advances, the pulse grows frequent, the cheeks become flushed, the pupils of the eyes are dilated, the stools and urine come away involuntarily, and the patient lies sleeping, or is convulsed.

In the youngest subjects, I have known it begin with a cough, quick pulse, and difficulty

difficulty of breathing, attended with circumscribed flushed cheeks as in teething, occurring on every little exertion, with continual fever and costiveness ; and sometimes a discharge from the nose and eyes.

Symptoms indicative of the disease at this age, are, a hand often put to the head, or lifted upwards, and waving about ; vomitings ; costiveness ; expression of anxiety, and dislike to be moved : at other times, an unmeaning look, and marks of insensibility ; the fingers often clinched, and hands tumid ; drowsiness ; the eyes in some cases impatient of light, in others, vision is so imperfect, that the child does not regard any object however close to them. The pupils are often not dilated till near the close of the disease, and patients often hear and comprehend, and take food to the last, and die suddenly upon the decline of the febrile symptoms, when they have been thought to be recovering. These and other symptoms, however, laid down as indications of water in the brain, are, in some degree, common to other diseases of children, especially the dilatation of the pupil, and sleepiness, in fevers arising from fowl bowels.

For these reasons, it is difficult to say if medicines are so often successful as hath sometimes been imagined ; for when a patient recovers, it may be suspected he has not had the true disease. Practitioners seem chiefly

chiefly to have depended upon repeated bleedings ; purges with jalap, or calomel ; blisters to the neck or head, and diuretic medicines. A large bleeding early in the disease I have thought very beneficial, especially in children of a robust habit. The use of sternutatories, as powder of asarum, or white hellebore, and electricity, have likewise ben recommended by some experienced practitioners ; to all which I would add the application of a narrow caustic, the whole length of the head, in the course of the *longitudinal sinus*, instead of trusting to a small blister on the crown.

Though I have made mention of calomel, I cannot say I have seen any good effects from the use of mercury, either as a purge or an alterative ; and on that account shall not enlarge on the different manner of exhibiting it with either of these views. It has, however, been strongly recommended by Drs. Dobson, John Hunter, Haygarth, Moseley, and Dr. Armstrong ; but I am informed by other physicians of eminence, that they have not been so successful in the use of it ; and some good arguments have lately been advanced against an indiscriminate recourse to it, by Dr. John Warren ; who advises trial to be made of emetics.

INCONTINENCE OF URINE.

THIS is not a very common complaint, I believe, in children, unless combined with the stone in the bladder, and then is not so constant, nor to the degree that is intended here. It is an involuntary flow of the urine, sometimes by day as well as during the night ; arising, I apprehend, from a relaxation or other affection of the *Sphincter* of the bladder, as in old people, but is not attended with manifest fever, nor symptoms of decay. An affection of this kind, in which the urine runs away in the sleep only, is perhaps, more common ; and I have known it continue to the age of fifteen or sixteen years when not properly treated, and afterwards yield to sea-bathing. The total incontinence generally comes on gradually, and is sometimes attended with excessive gonorrhœæ, even in very young children.

Tincture of *catechu*, or of *gum kino* ; the bark ; *balsam-copaibæ*, and white vitriol may be made trial of ; but nothing is usually so effectual as repeated blisters applied over the *os sacrum*, or lower part of the back ; and proper doses of the *tinctura cantharidis*. This may be given in doses of ten or fifteen drops to children from five to ten years of age, and increased to two scruples and a dram ;

dram ; which has general removed the complaint if there has been no morbid affection of the spine, as is sometimes the case. If these means should fail, recourse should be had to sea-bathing.

THE SEVEN-DAYS-DISEASE, &c.

I SHALL close this part of the work with a brief account of two very extraordinary disorders, which should have been noticed among the earlier complaints of infants, if they had been diseases of this country, or even much known in other parts of Europe. As the *seven-days-disorder* has, however, made its appearance in this quarter of the globe, and may, therefore, at some future period, become more common, it may be proper it should be mentioned in a work of this kind. The following account is translated from the French of *Mr. Le Febure de Villebrune*, who refers to the Spanish work of *D. Ulloa*, (*Disc. XI. §§ 19 and 20*) and *Barrère's Voyage to Guinea*.

§ 19. The *disease of seven days* of new-born infants is common in both quarters of America, and equally dangerous in the high, as in the low parts. A great number of infants die of it, without any thing preceding that could occasion it to be suspected. They are,

are, on the contrary, apparently healthy and robust, when the disorder makes its attack in the form of epilepsy ; and few of those who are visited with it are found to recover. Though this complaint is not altogether unknown in Europe, it is neither so common, nor so dangerous. It is conceived, that the best preventative were to guard infants from being exposed to the wind, till the first seven days are over.

§ 20. But infants at Guaneavelica are still liable to another very extraordinary complaint. Having escaped the seven-days-disease, they thrive well until the third or fourth month ; they are then seized with cough and pulmonic affections, which they call *pecheguera*. The complaint goes on increasing without any sensible relief from the medicines made use of ; and a swelling taking place, they presently die. The disorder attacks only the white people, or children of the Spaniards ; the Indians and the mongrels are not subject to it. The way to escape it, is to remove the infants from the spot, before they are two months old, and to carry them to more favourable climates, into one of the Zuebrades, (or the low grounds between the mountains) that are at a little distance. It is imagined, that the cold and intemperature of the climate is the occasion of infants being so soon seized with this complaint. This may be the case in

some degree : but the vitiated habit of body of their parents, and the sulphureous vapours continually issuing from the furnaces for the extraction of mercury, may likewise contribute to it. In fact, these vapours are so abundant, that when reunited by means of the cold, they form such a thick cloud in the atmosphere, during the season there called summer, as to cover all the colony.
Notic. American. Disc. II. p. 205. L.

THE END OF THE FIRST VOLUME.



A
T R E A T I S E
ON THE
DISEASES OF CHILDREN.
VOLUME THE SECOND.
IN TWO PARTS.



A

T R E A T I S E, &c.

P A R T I.

HAVING already considered all the more important Diseases for which the Physician will usually be consulted, there remain now only some lesser matters in that line. But beside these, there are many complaints which relate rather to the province of Surgery, and others that may be said to be of a mixed kind, but have each a reference to the department of Midwifery. Of these last, more especially, not a few may very well fall under the care of another class of readers ; their nature and treatment, it has been already noticed, being in this edition rendered more obvious and intelligible. To the Diseases will follow suitable

Directions to Parents and others, for the general *Management of Infants* in every article of importance to their Health ; to which particulars the *second part* of this volume is wholly devoted.—The first Complaints I shall mention relate to *contagious Eruptions*.

TINEA, or SCALD-HEAD.

THE Scald-head is a very troublesome complaint, and is said to be often a scrofulous symptom ; but I rather think it is usually communicated by contact, and when lighting on a scrofulous habit may be more difficult of cure. I have never met with it in infants, but it being no uncommon complaint in the later periods of childhood, it may be proper to notice it, as it sometimes proves a very tedious disease. I hope, however, to point out a successful method of cure, the unpleasantness of which has, improperly I think, prevented its being more generally adopted.

From some considerable experience, I may venture to say, that being usually a mere complaint of the skin, it may be most successfully treated by outward applications. This disease is seated in the little glands at the roots of the hair, is sometimes dry, but at others moist, and then produces little ulcers,

cers, which being thoroughly cleansed, and made to digest, may be safely healed up, as I have found in many other affections of the skin.

It is not uncommon, I know, to administer a variety of internal remedies, and perhaps they may sometimes be required, though I think I have seldom given any thing more than lime-water, or a decoction of the woods ; and a few purges at the decline of the disease.

If the complaint be taken early, before it has spread far over the head, and whilst the scabby patches are small and distinct, it may be frequently cured by the sulphur ointment, with a small addition of the calx hydrargyri alba. And such a preparation may very safely be made use of, if the patient be kept within doors, and his body be properly open; as it will be necessary to rub in only a small portion, one or twice a day, on the parts immediately affected. But if the disease should spread, or has already extended itself over a great part of the head, the hair must be shaved off, and the head washed twice a day with a strong decoction of tobacco ; repeating this process till the scabs disappear, and the hair grows up from the parts they had occupied. Or, instead of the decoction of tobacco, the head may be well washed with the lotio saponacea, with the addition of a small quantity

tity of the aqua kali puri, and the scabs anointed with the unguent. hydrargyri nitrati in the place of the sulphur ointment and calx of mercury ; the former being a very powerful, as well as a safe application, and may be used in any quantity that may be necessary.

But the complaint is sometimes of long standing before medical assistance is asked, and is not only extended over all the head, but the scabs are thick, and rise high above the surface, returning as often as they may fall off. I have, however, never failed to cure the common tinea by a method perhaps well known, but too seldom complied with in time, on account of its apparent severity. It consists only in well washing the head with a piece of flannel, and a strong lather of soap-suds, after it has been close shaved, and then rubbing in very forcibly the common unguentum picæ and a good quantity of the pulvis ellebor. alb. or other safe depilatory, for near an hour at a time, always using it very warm ; and covering the head with a bladder to preserve the ointment on the part, as well as to keep it from sticking to the cap, or other covering made use of. When this has been done three or four times, not only the scabs, but the hairs will also loosen, which must be pulled out, however unpleasant the operation may be ;
as

as it will, indeed, prove a kindness in the end : but must be repeated till all the hairs be taken out, after which new hair will rise free from scabs, which is a sufficient indication that the disorder is effectually removed.

There is, however, a spurious kind of scald-head, that is sometimes more difficult of cure ; but it requires nothing but patience in the use of one or more of the above remedies, or at most, an alterative plan of the flour of sulphur, or of some mild mercurial preparation, with the common decoction of the woods, or the Lisbon diet-drink. Or, should the difficulty consist in getting out the hair entirely, or destroying the diseased glands at its roots, the calx viva may be had recourse to, in one form or other ; and is exceedingly preferable to an adhesive pitch-plaister. In a few instances, the topical use of the unguent. hydrargyri mitius has a wonderful efficacy.—In the spurious tinea particularly, it may be proper to open an issue, or fix a seton in the nape of the neck.

HERPES MILIARIS, or SHINGLES; (RINGWORM.)

THE *Herpes miliaris*, and the *Shingles* are distinguished by some writers, but I can see no good reason for it ; and M. Aurelius

Aurelius Severinus and others, have esteemed them to be the same disorder.

The *Herpes*, like the foregoing complaint, is a disease of the skin, infesting some children almost annually, and appearing in dry scurfy blotches, on different parts of the body, and usually of a circular form. It becomes troublesome chiefly from the violent itching that constantly attends it, and would probably get well of itself: it even sometimes has the appearance of being critical, or is, perhaps, rather an indication of some favorable change in valetudinarians, especially in adults, who are sometimes found getting the better of chronical complaints at the time the shingles makes its appearance. It is, however, often a blemish; as it frequently attacks the hands and face, and especially the forehead. It is amongst the vulgar errors, I believe, that when it appears on the breast or loins, if it should extend round the whole body, it would prove fatal—This form of the disease is termed *Zona herpetica*.

The *Herpes miliaris* is also by many distinguished from the *ring-worm*, (but perhaps needlessly); the former being always supposed to arise from an affection of the system, and to be preceded by shivering, or sickness at the stomach. They are certainly both very easily cured, and probably would alike disappear of themselves. The

Herpes

Herpes yields very readily to stimulating and astringent remedies. Ink, therefore, as (as it contains an infusion of galls) has been a common, though inelegant application, and may serve very well where better forms are not at hand : it is sometimes made into a paste with the flower of mustard. Spirit of wine ; saturnine lotions, with the addition of vinegar, or white vitriol ; and ointments containing lead, answer very well ; or an ointment of calcined zinc and lard : but the ungu. hydrarg. nitrati is preferable to most others : The use of a flesh-brush is a good prophylactic, or preventive, in habits accustomed to the complaint.

Should the shingles spread and become sore, it should be treated as directed below.

HERPES EXEDENS, or SERPIGO.

THIS is a malignant species of the above complaint, but is generally local. It is mentioned only as having relation to the former, being rather a sore than an eruption, and not very common in children.

Suppurative applications may be made use of in the early stage of the complaint, such as ointments of minium, soap, and Venice turpentine, or a suppurative poultice, in order to liberate the diseased glands on the surface, and absorb the acrid discharge.

After

After this, the parts should be washed with saponaceous lotions, and lastly, with strong solutions of vitriol. Should these fail, the ung. hydrarg. nitrati will be proper, and as the last remedy, caustic applications ; of which, butter of antimony is the best, with which the little ulcers may be touched lightly from time to time. The patient may take at the same time of a decoction of burdock-roots, or sarsaparilla.

SCABIES or ITCH.

THIS disorder so commonly known and easy of treatment, is mentioned only to introduce a caution to some readers, against popular washes and girdles ; which are generally either useless or hazardous. Such are often had recourse to in order to avoid the unpleasant smell of the brimstone ointment ; which, however, rarely fails to cure the genuine itch. There is, indeed, a spurious kind, as of the scald-head, which is far less, or often not at all contagious, but is more difficult of cure than the genuine. Should the brimstone ointment therefore fail, sulphur should be administered inwardly, and sometimes mercurials ; which may likewise be added to the ointment, and in a few weeks, at most, will not fail of removing the complaint. It is common to administer at the same time some alterative diet-drink.

OPTHALMIA, or INFLAMMATION of the EYES.

THE Eyes of new-born infants are very apt to be inflamed during the first three or four days after birth, especially in the winter season. If it be owing to taking cold, it is probable it has been either immediately after the child was born, before it has been given away to the nurse, or very soon afterwards ; and on this account, a flannel cap becomes a very necessary part of its covering before it can be formally dressed.

This kind of inflammation, however, is usually of very little consequence, and generally disappears of itself, upon merely keeping the head warm, or by washing the eyes with a little rose-water , to two ounces of which, in some cases, two or three drops of the water of acetated litharge, and a grain or two of white vitriol, may be added. But there is an inflammation to which infants are liable, that sometimes continues a long while, and therefore calls for attention. I do not allude to that redness on the eye, known by the name of sugillation, or blood-shot, which will often remain a long time, return, and disappear again, without the least injury to the child ; nor to the watery-

eye, which will sometimes continue for many months, and even for years. But that which I here intend, is accompanied with the true appearances of ophthalmia, or inflammation of the white of the eye, attended with a discharge as in the ophthalmia of adults : it will sometimes get a little better by common means, but seldom remains so for many days together, and generally increases at the end of the month.—It often seems connected with the state of the bowels, and the coming on of a purging will frequently cure it.

I have nothing out of the common way to recommend for it ;* nor does it need much to be done, unless it be unusually tedious : in which case, the parts behind the ears should be made sore, in the way I have before described, and be kept so for some time. Previous to this, it is often necessary to apply a blister to the back, and a leech to one or both temples ; to keep the body open, and to make use of the cooling eyewater before recommended. If the child be inclined to a frequent return of it for years, as I have known in very healthy children, it will sometimes degenerate into what is termed the watery-eye ; an excellent remedy for which is a grain of white vitriol, mixed

* For a more full account of the treatment of *Ophthalmias*, See *Surgical Tracts*, 2nd Edition.

mixed with as much fresh butter as will form it into a liniment, which should be put into the inner angle of the eye every night, at going to bed. In some of these cases, however, the ointment of nitrated quick-silver has proved a more speedy remedy, and is a less painful application.

But there is a far more formidable inflammation, which has of late years been called the purulent ophthalmia, distinguished from every other, by the vast quantity of thick matter discharged, and great swelling of the lids.

This is so dangerous an inflammation as to require the best advice on its very first appearance. It frequently seizes an infant a few days after birth, without any previous complaint ; and sometimes not only destroys the sight, but dissolves the eye itself, in less than a week's time. I have likewise seen it exceedingly violent in children of four or five years old, but rarely without some blow, or other accident.

In this disease, every thing that may remove inflammation, and unload the vessels of the part, should be immediately had recourse to. The body should, therefore, always, be kept open, and if the child be two or three years of age, leeches should be applied to the temples : scarifications also of the *tunica conjunctiva*, (which generally falls out upon the opening of the lids) ; blisters

to the back, nape of the neck, and behind the ears, are sometimes essentially necessary. The edges of the eye-lids should be kept constantly greased throughout the day, especially in infants, that the thick matter may find an easy escape. At night, a little of Goulard's cerate may be spread on soft linen, and applied to the eye, and over it a very soft cold poultice, made with the compound water of acetated litharge, laid on as lightly as possible; that by its constant moisture, the eye-lids may always be kept supple. But if the discharge should seem to be confined, or the eye affected, by the weight of the poultice, this application should be changed for soft linen rags, which should be frequently wetted with cold brandy and water, or some yet more astringent lotion.

It should ever be remembered, that in the beginning of the complaint the taking away of blood is often not to be dispensed with, (unless the child be very young, or otherwise weak) nor to be sparingly done. The application of one leech, therefore, to the temple or neck, will have no good effect, though often repeated. Two, three, or even more, according to the age and strength of the child, should be put on at a time, and a blister soon afterwards; which will often do more to conquer the inflammation, than most

most other means put together, if had recourse to in time.

Throughout the complaint, astringent and stimulating applications are to be made use of, being not only far preferable to other means, but so necessary, that should emollient poultices, and merely cooling collyria be, at any time, depended upon, the event were likely to be fatal. What may be the very best remedy, it may not be very easy to determine, having for some years succeeded, and in a reasonable time, by different means. But ever since I have seen Mr. Ware's excellent publication on diseases of the eyes, I have had so frequent recourse to the *aqua camphora'a*, as recommended by him, in this species of ophthalmny, and have succeeded so well with it, that I am not yet certain to which the decided preference should be given.

One dram of the *aqua camphorata* of Bate's dispensatory, to two ounces of water, will be a sufficient strength to begin with. A few drops should be instilled into the eyes, several times in the day, as well as the lids, be frequently washed with it.

The topical remedies alluded to, in the place of the *aqua camphorata*, are *tinct. opii*, and the *unguentum hydrargyri nitrati*, which should be applied every night at going to rest ; the former being dropped into the eye after the lids have been touched with

the ointment. It is sometimes proper to lower and soften the ointment with a little fresh butter, and to add a little camphor.

It has been said, that where this inflammation has not been properly treated from the beginning, the eye is sometimes exceedingly injured by it, so that even the eye will burst. At other times, the *cornea* becomes much thickened, and the pupil more or less opake by means of one or more specks which the inflammation has occasioned. It should be remarked, however, that we sometimes meet with an agreeable surprise, at the decline of this formidable complaint, and find the eye much less injured than had been suspected at the time we were first able to get a sight of it. And at others, even where the *cornea* has burst, the *aqueous* humour has been restored, and being confined by the cicatrice, the patient has recovered his sight. On the other hand, the *cornea* has sometimes been so greatly injured, or the *iris* contracted, that though the eye has not been funk, the sight could not be restored by any means.

From what I have known of some permanent inflammations, I have sometimes been much inclined to the opinion of the late Dr. Hunter and others, who after having tried a variety of means, and assisted in consultation with different physicians, have been induced to think, that many of the very stubborn ophthal-

ophthalmias originate from a venereal taint, and could only be successfully treated by its specific remedy, in one form or other.— Every practitioner will be very careful how he takes up such an opinion in particular instances ;* however, it is right to observe, that if none of the means above recommended should produce a favourable change in eight or ten weeks, I believe nothing but that specific species of alteratives will have any lasting effect.

Though it is not my design to treat on this disease, it may not be amiss to observe, that whenever a venereal taint actually exists, it is more safely treated by unction than in any other way ; and infants would probably be cured much oftener than they are, if recourse were had to it in better time than it commonly is. If internal remedies, however, are for any reason preferred, I have found none so efficacious, convenient, and safe, as the late Mr. WARD's *white drop*.

LEUCOMA,

* The French physicians seem too much inclined to regard the purulent ophthalmmy in this view, being a very common symptom, amongst others truly venereal, in many infants in the *Hôtel-Dieu*, *l'Hospice de Salpêtrière*, *Vaugirard*, and *des Enfants trouvés*; but when this species of ophthalmmy appears alone, the case should not be hastily concluded to be venereal, however violent the ophthalmmy may be.

LEUCOMA, or SPECK of the EYE.

THIS is often a consequence of long continued ophthalmias, and is mentioned by Dr. Armstrong amongst the diseases of children, in his second edition. He directs a variety of things for the cure of it, which he says are often efficacious if the specks have been recently formed, but when of long standing, he has never seen any method successful. I shall only observe, that in a very great number of cases, a drop or two of the aq. cupri ammon. instilled into the eye, two or three times a day, has removed such specks, in the course of a few months, and sometimes much sooner, without any other means. Should this fail, however, trial may be made of a solution of the hydrargyr. muriatus, one grain being put into four ounces of water ; and the ointment of nitrated litharge be applied in the manner before recommended.

CATARACT and GUTTA SERENA.

ALTHOUGH these disorders are not very common in young children, they do, nevertheless, sometimes occur, and infants have been born with a *cataract* in one or both

both eyes, or totally deprived of sight by the *gutta serena*. I shall therefore speak of the two diseases together, and the rather because the same remedies are here accommodated to both.

It would, indeed, ill become a man of the least character and experience to affect to have much to offer in a way of remedy for these dreadful complaints; the oldest and best practitioners never having pretended to be often, or by any means uniformly successful in the treatment of them. From what I have known, however, they are not to be despained of, and I should think it unpardonable not to hold out every occasion of good, or of comfort in my power, however little it may be, in cases wherein art has so generally failed—*Valeat quantum valere potest.*

Where a disposition to cataract and gutta serena have been suspected, I have known very considerable benefit obtained, and even the sight fully restored by an alterative plan of calomel and cicuta, or by the long continued use of an aromatic vapor with spirit. ammon. compos,* conveyed to the eyes by means of a tube properly adapted; or by brushing

* Half an ounce of the spirit with two ounces of water, should be kept boiling over a lamp, and be made use of two or three times a day.

brushing the eyes and the adjacent parts, several times a day, with soft and smooth brushes, which are properly constructed by Messrs. Ayliffe and Gee, in Wardour-street. In the gutta serena, electricity also has certainly succeeded in several cases ; and in one instance, a lady whilst under such a course, suddenly recovered the perfect use of her eyes, through a blow she accidentally received on the face, which produced a copious hemorrhage from the nose. In imitation of this, the like discharge has been lately artificially procured by wounding the internal vessels of the nostrils ; but without apparent good effect. To these brief observations I have only to add, that I have very lately seen a gentleman of near sixty years of age, for whom I had been consulted about three years before, who some time after having been let blood in the above mentioned way, and made trial of electricity without apparent advantage, has recovered from a *gutta serena* of near two years standing, under the use only of a common collyrium, which as I cannot conceive to have had any share in the cure, conspires with a few similar instances to hold out ground of encouragement to other sufferers, sufficient to prevent despair, under this melancholy disease.

I say nothing in relation to the cure of the cataract by a surgical operation, either by extraction

extraction or depression, except it be, that neither of them is advisable for infants unfortunately born with the disease, till they shall have attained to five or six years of age.

The STITHE, or STYE.

THE stithe is a small inflamed tumor on the edge of the eye-lids, more commonly on the side towards the nose; but there are sometimes two or more at a-time. It rises suddenly, as if from a cold, or blast, and in the end suppurates, or forms matter, of a thick, or cheesy consistence; often, indeed, not for several weeks, or even months, but sometimes much sooner. It is occasioned by an obstruction in the glands of the eye-lids; and the matter being inclosed in a hard cyst, or bag, the inflammation often returns in the same spot, till the cyst being destroyed by repeated suppurations, the cavity is afterwards filled up, and the complaint disappears.

All that is necessary to prevent the returns of this temporary blemish, which greatly weaken the eye, is to touch the little abscess, as soon as it breaks, with the caustic called *argentum nitratum*, cut to a point, (carefully avoiding doing injury to the eye) which by destroying the cyst, at once removes the complaint.

When

When these stiches are small, or hang by a very narrow base, they may be safely cut off, or be tied very tight with a bit of silk, and afterwards touched with the caustic as before mentioned.

D E A F N E S S.

CHILDREN are frequently rendered deaf, in different degrees, in one or both ears, by very slight colds, and at the expiration of a few days the hearing returns, without recourse to any means. It is, however, sometimes otherwise, and it becomes necessary to give a little purging physic ; to keep the ears warm ; and to confine the child to the house : and where this does not succeed, the complaint is not a little difficult of cure. Should it arise from indurated wax, it will be proper to syringe the ears with warm water, to which should be added a tea spoonful of lavender or honey-water ; and a few drops of warmed oil of almonds may be instilled into the ears at going to bed. If these little means fail, warmer remedies should be made use of, such as the following, which I have found very frequently successful :

B. Olei amygd. 3fs Ol. Succini rectific. gtt.
xx Spir; Camphorat. 3fs. Tinct. Castor,
5j misce et instill. guttas iv vel vj calefact. aur. affect. nocte et mane.

Deafness, however, is sometimes owing to the want of a due secretion of wax, and is then much more difficult of cure. To promote this secretion a few drops of the soap-liniment, oil of almonds and æther, and such like warm acoustics should be tried, and continued for some time, if they should not occasion much pain ; and in all cases, blisters may be applied behind the ears. The juice of onions, or a clove of garlic, raw, or roasted, put into the ears, has sometimes restored the secretion, and removed the deafness ; and in many cases it has been effected by electricity. But it not unfrequently happens, that the cause of deafness lies in the auditory nerve, and in that case, if the last-mentioned remedy fails, very little is to be expected from art. Nature, however, sometimes effects the cure, and children after having been deaf for several years, suddenly recover their hearing perfectly, especially females.—Medicated snuffs also that invoke gentle sneezing, and discharges from the head, have sometimes been found surprisingly efficacious.

CANKER of the MOUTH.

THIS is chiefly a complaint of children, being rarely met with in adults, is often talked of by nurses, and is usually as trifling

as any. It has, indeed, been said by some writers to prevail very much in *England* and *Ireland*, and to be often a serious complaint. Such a disorder, if it be canker, may be treated as under the next article; but the common canker is rarely troublesome to cure, except it be amongst very poor people, where a great number of children are crowded together.

It sometimes makes its appearance in the month, at others, about the time of teething; and frequently at the age of six or seven years, when children are shedding their first teeth, and the second are making their way through the gums, which are covered with little foul sores, and will sometimes extend to the inside of the lips and the cheeks. It seldom requires more attention than was mentioned under the article of dentition, any mild astringent application, and keeping the body open, usually effecting a cure; or if it does not, and the complaint makes its appearance at the time of teething, it will generally go away as soon as the teeth are come through.

The worst species of this complaint that I have happened to see, has been during the second period of dentition, when a child has been shedding a number of teeth together, and the rotten stumps have been neglected to be drawn out. The whole gums will then sometimes be spongy, or dissolve

solve into foul, spreading sores, and small apertures will be formed, communicating from one part to another, accompanied with an oozing of a fetid, and sometimes purulent discharge.

If the stumps of the decayed teeth can, in this case, be easily got at, they ought to be extracted; after which some such application as the following will soon brace the loose gums, and heal up the ulcers.

R. Bol. Armen. Sang. Draconis,

Gum. Myrrh. Cort. Peruv. pulv. subtil.

Cremor. Tartari $\frac{aa}{3}$ 3j

Mel. Rosæ q. s. misce, ft. Pasta.

R. Aq. Calcis $\frac{3}{4}$ vj Tinct. Myrrhæ,

Mel. Rosæ $\frac{aa}{3}$ ss. ft. Mixtura.

The gums should be touched several times in the day, especially after meals, and at going to bed, with the above paste, and the mouth be washed occasionally with the mixture.

If no considerable change for the better should take place, in a week or ten days, a dram of alum may be substituted in the place of one of the drying powders, and instead of the above mixture, one acidulated with as much of the muriatic acid as the parts will endure, occasionally made stronger, till some amendment be perceived; the belly being, in the mean time, kept properly open. If internal remedies be thought

necessary; Peruvian bark, sarsaparilla, and mineral acids are the properest ; and the child may be kept on a diet of milk and vegetables.

GANGRENOUS EROSION of the CHEEKS.

THIS complaint resembles the canker more than any other disorder, though it is much more dangerous, and is not a mere local disease. I have seen no clear account of it in any late writer but Mr. Dease of Dublin, who seems to have met with the disorder pretty frequently, and describes it very accurately in his tract on the diseases of Lying-in Women, &c. to which I am very much indebted on this occasion.

It appears to attack children from two, to six or eight years of age ; usually unhealthy children, and such as have been subject to worms. The whole body often feels cold on the approach of the disease ; after which a black spot appears on one of the cheeks or lips, and spreads fast ; but without any appearance of inflammation. Oftentimes the whole side of the face is eaten away, together with the lip, so that the bare jaw-bone and inside of the mouth appear. In the end, the intire lower-jaw falls down on the breast, and the whole side of the face is dissolved into a putrid mass;

mass ; a colliquative diarrhoea taking place from the offensive matter that is continually swallowed, especially by very young children.

In the cure, internal as well as external remedies are required, and only such as correct putrescence, and support the strength, appear to be of any use. A few drops of the muriatic acid, therefore, taken inwardly, in an infusion of red rose leaves, or in the child's drinks ; the saline draught in effervescence ; and in the end, the bark, in doses suited to the age, with good broths, jellies and wine, are the proper remedies. The parts should be washed, and likewise injected with the muriatic acid in camomile, or sage tea, and afterwards dressed with the acid mixed with honey of roses, and over all a carrot-poultice. The child should in the mean time be gently purged with magnesia or rhubarb, to carry down the putrid matters it may have swallowed. By this treatment Mr. Dease informs us he has recovered every patient except one, since he had recourse to this plan, which the world is much indebted to him for making public ; though fortunately this dreadful complaint does not appear to be, by any means, a common one.

PSOAS, or LUMBER-ABSCESS.

FREQUENTLY as this disorder takes place in adults, it is as often met with in younger subjects, and even such as are only four or five years of age ; and must therefore be ranked among the diseases of childhood.

It is a true chronic, or slow inflammation, and is often occasioned by bruises, strains, or lying on damp ground ; and is not uncommonly connected with a scrofulous taint of the habit. The inflammatory symptoms being rarely severe, suppuration takes place slowly, and many months elapse before the matter can be felt externally ; which sometimes points up high about the loins, hip, or groin, and at others, above the middle and on the inside of the thigh : In the most benign, the abscess frequently bursts in the groin. It is, in any case, a very dreadful disease, and is briefly noticed here, only for the sake of warning parents of the danger of so insidious a complaint, and marking the outlines of a practice which seems to have proved the oftenest successful.

The first indication is to procure a resolution, if possible, upon the approach of the first symptoms, such as pain in the loins, difficulty of standing upright, and a painful

ful sense of contraction of the limb, and before those of a hectic nature supervene; but unfortunately, the above symptoms are too often over-looked, or mistaken in the beginning.

With a view to a resolution of the inflammation, recourse should be had to bleeding by leeches, and cupping, and by blisters applied near the seat of the pain; by purging; a supine posture, and low diet; and sometimes a caustic near the lumbar *vertebræ*.

Should these means fail, or advice be sought for too late to expect any thing from them, of no less consequence is the treatment after the matter is formed; which should be evacuated, by an artificial opening, as early as possible, and by a very small aperture. Soon after this, the diet should be changed for one more cordial, and nourishing; and the bark, steel or vitriol should be administered, and the patient enjoy a pure air, and take such gentle exercise as his situation may admit of without an increase of pain.—The abscess should be dressed superficially; and restringent, or other injections be made use of, among which, perhaps, sea-water is one of the best.

A very similar, and equally dangerous disease is the *Morbus Coxaris*, or abscess of the Hip-joint: the symptoms and treatment of

of which so much resemble those directed for the Lumbar-abscess, that it were needless, in a work of this kind, to do more than barely mention the disease.

WHITE SWELLING *of the JOINTS.*

I SHALL be equally brief also on this article, my attention being only to mention from experience a few remedies for this dangerous complaint, that have been found successful, in young subjects, if had recourse to in good time, and before any matter has been formed. Such are, the repeated application of eight or more leeches, and afterwards small blisters to the joint; gentle frictions of the part; two or three vomits a week, with entire rest of the limb; and in the end, sea-bathing, especially if the patient be of a scrofulous habit. In a few instances, electricity has had an immediate, and wonderfully good effect, even where the joint has been considerably enlarged, the pain very great, and the child incapable of straightning the limb.

PALSY of the LOWER EXTREMITIES with
CURVATURE of the SPINE.

THIS complaint has been of late years so thoroughly announced, that it should seem unnecessary to enter into a minute detail of it after the accurate description given by Mr. Pott, whose early account and judicious treatment of this dreadful disease has added lustre to the reputation acquired by his former publications.

It will be proper, however, carefully to distinguish it from the simple curvature of the spine, in which a greater number of *vertebræ* is concerned, and the legs are not peculiarly affected; as well as from a complaint presently to be noticed, under the name of *debility* of the *lower extremities*, in which there is no manifest change of figure in the spine.

The palsy of the lower extremities is certainly confined to no age, and being at first very frequently mistaken in young children for the trifling effect of some fall or strain, is intitled to notice in this work. I have never met with it, indeed, where it has not been preceded by some fall or violent exertion, though as Mr. Pott has observed, such supposed accidents are seldom much noticed previous to the debility taking place:

but

but this is not universally the case ; though it is, indeed, probable, there may be some predisposing cause, without which no common strain would induce so much mischief in a part continually disposed to accidents.

The Curvature is generally in the neck or back, though sometimes in the upper part of the loins, and varies in extent and degree according to the number of the vertebræ that may be affected. The first symptom noticed by children of an age capable of expressing their feelings, is an increased sensibility, and irregular twitchings in the muscles of the the thighs. This is succeeded by a dislike to motion, especially to moving briskly ; the patient on such occasions finding himself likely to fall, his legs getting entangled through their weakness, and a disposition to cross each other, in his attempts to step forward. Soon after this, perceives himself unable to stand upright long together, and that the legs and thighs have lost much of their natural sensibility. Matters seldom continue long in this state, and weakness increasing, patients lose more and more the use of both the lower extremities, till some are unable to move them at all even in bed ; and these advances of the disease are said to be more rapid in adults than in infants. In the latter, I have particularly remarked that rigidity of the ankles noticed by Mr. Pott, by which the toes

toes are pointed downwards, so that the heels cannot be brought to touch the ground.

As my intention is only briefly to point out the disease, and the propereſt means of relief, it is not of importance to enter into a farther detail of the progress of this disorder, and of other complaints which are induced by it whenever the original disease has been long neglected.

The obvious remedy is that first happily suggested by Mr. Pott, and consists only of a large iſſue or ſeton to be made on each ſide the curve, at ſuch a diſtance as may prevent their burſting into one. Where the curva-ture comprehends three or more vertebræ, or joints, the ſeton may be preferable to an iſſue, but if the latter be on any account elected, I ſhould advise its being made by the knife rather than a cauſtic; not only as being less painful, but also for the very ef-fect Mr. Pott has disapproved of, I mean, the confeſſion inflammation before there has been time for ſuppuration to take place. It may, indeed, be doubted, whether the be-neſit derived from the iſſue may not arife rather from the inflammation and ſtimulus produced on the ſurface, than from the diſ-charge, to which, nevertheless, Mr. Pott ſolely attributes the cure *. In a recent
caſe,

* It has been a common idea, that the diſcharge furnished by an ulcerated ſurface is the ſource of all the

case, however, and a very unpromising one, in an infant about ten months old, a very sensible relief was afforded as soon as the inflammation took place, and before any suppuration appeared ; and though the child had been many months a cripple, with loss of health and appetite, unable to support its head, and the *sternum* very much distorted, the relief was so great in one week after

the benefit that may be derived from abscesses, unless blistered surfaces be an exception ; in regard to which, physicians have usually considered the stimulus produced by the cantharides as the chief mean of benefit, especially in cases of great local pain and inflammation. It is, indeed, matter of some surprize, that thinking men have not more generally adopted the like idea in regard to other inflamed surfaces, whether induced by natural or artificial means. It should surely seem, that *that* state of the system, or of the parts, by which suppuration is induced, is more likely to be the occasion of benefit, than the discharge of a large portion of the richest animal juices, which is but the consequence of the other. Thus, in most critical abscesses, the fever is found to abate as soon as the external inflammation takes place, and the patient instead of being afterwards benefited by a copious discharge, is not unfrequently hurried by it into a fatal miasma, when the abscess has been large, or improperly seated. There may be other instances, indeed, in which the suppuration, and even the great quantity of the discharge, may be beneficial to the system ; but it is probable, that this is not in general the case, and much less in the present instance, which is attended with symptoms of general debility.

after the incisions were made, as left no room to doubt of a perfect recovery ; which accordingly took place very soon, without any deformity remaining. Had Mr. Pott advanced any other reasons for the preference, given to the caustic, or merely affected such preference, I should readily have submitted to the great experience he has had in this dreadful complaint ; but though I may very possibly be mistaken in my reasoning, it appeared a duty just to state it, as well as to notice this instance in point in a disease of so much importance : hoping at the same time, that the desire Mr. Pott has expressed of serving the public, and the satisfaction he has received from the benefit attending the early publication of so valuable a remedy, will induce him to apologize for any attempt to extend, or illustrate its utility.

The issues should be kept open till the patient perfectly recovers the use of his legs, or even a while longer, at least one issue, which ought not to be dried up till the patient can walk firmly alone, and shall have recovered all the height which he may have lost in consequence of that stooping which the disorder had induced.

In addition to the use of these means Mr. Pott has suggested those of cold-bathing, frictions, and the bark, or such like ; but I have myself never seen any benefit from any thing where the issues have failed, which I

have found efficacious where no other remedy had been made use of. After the recovery, however, if the patient be of a scrofulous habit, sea-bathing is peculiarly indicated.

The *moxa* has been successfully made use of in one instance, by Mr. Gimès,* after the caustic, as directed by Mr. Pott, is said to have failed. But as the burning was several times repeated, and the recovery appears to have been unusually slow, it is not very certain, but a repetition of the caustic might have proved equally beneficial.

DEBILITY of the LOWER EXTREMITIES.

THE disorder intended here is not noticed by any medical writer within the compass of my reading, or is not so described as to ascertain the disease. It is not a common disorder, I believe, and seems to occur seldomer in *London* than in some other parts. Nor am I enough acquainted with it to be fully satisfied, either in regard to the true cause, or seat of the disease, either from my own observation, or that of others; and I have myself never had opportunity of examining the body of any child who has died of this complaint. I shall therefore only

* *Jour. de Med. Fev. 1788.*

only describe its symptoms, and mention the several means attempted for its cure, in order to induce other practitioners to pay attention to it.

It seems to arise from debility, and usually attacks children previously reduced by fever; seldom those under one, or more than four or five years old. It is a chronic complaint, and not attended with any affection of the urinary bladder, nor with pain, fever, nor any manifest disease; so that the first thing observed is a debility of the lower extremities, which gradually become more infirm, and after a few weeks are unable to support the body. There are no signs of worms, or other foulness of the bowels; therefore mercurial purges have not been of any use, neither has the bark, nor hot, nor cold-bathing. Blisters, or caustics on the *os sacrum*, and the great *trochanter*, and volatile and stimulating applications to the legs and thighs, have been chiefly depended upon; though there is no appearance of an enlargement of any of the *vertebræ*, or joints of the back, nor of suppuration in the external parts, and therefore no resemblance to the inflammation of the intervertebral cartilages, the psoas abscesses, or the *morbus coxaris* of De Haen.

When only one of the lower extremities has been affected, the above means, in two instances out of five or six, entirely remov-

ed the complaint : but when both have been paralytic, nothing has seemed to do any good but irons to the legs, for the support of the limbs, and enabling the patient to walk. At the end of four or five years, some have by this means got better, in proportion as they have acquired general strength : but even some of these have been disposed to fall afterwards into pulmonary consumption, where the debility has not been entirely removed. On this account it may be suspected, that the complaint is sometimes owing to *scrofula*; and I have been very lately informed by a gentleman of character, that he has seen one instance of a paralysis, or debility of this kind, in which, upon opening the body after death, the internal surface of the lower *vertebræ lumborum* was found carious, though there was no abscess of the *psoas* muscle, nor external tumor on the back, or loins.

I have seen a similar debility seize grown people, especially women, after some very long illness, and has continued a year, or more ; during which time they were utterly incapable of walking without the help of crutches. These cases, however, have always been attended with great pain in the commencement of the complaint, though without tumour of the limbs ; and have seemed to be benefited by the external use of the waters at *Bath*.

CURVATURE of the BONES from
WEAKNESS.

CROOKEDNESS of the bones, particularly those of the lower extremities, has been mentioned as a common consequence of rickets, and may claim a transitory notice in this work.

The principal inquiry in the treatment of deformities of this kind, respects the use of irons for the support of the limbs, whenever the distortion happens to be considerable. The propriety of this assistance has, indeed, been doubted by some practitioners, as well as their unpleasant appearance been objected to by parents; who have therefore been inclined rather to trust only to cold-bathing. Friend, however, as I am to the latter, I may venture to say from experience, that it is likely to be prejudicial at the time it is often had recourse to; for by strengthening the system, it rather serves to confirm the crookedness which the bones have already contracted. It is an advantage, on the other hand, that the bones remain soft and yielding as long as the curvature is considerable, if so be the pressure of the superior parts be at the same time duly counteracted. To support the limbs, therefore, with irons, as long as the softness of the bones disposes them to yield un-

der the weight of the body, is certainly a rational intention, and has been very beneficial in numberless instances. This end obtained, the bones being still lengthening as the child grows up, they naturally incline to become straight, and at this time the cold-bath and other tonics are properly indicated, and will co-operate to the cure of the complaint. The only care required, is, that the irons be made as light as possible, and be properly adapted, and that they be lengthened as often as may be necessary.

When a curvature takes place in the spine (without any disease of the *vertebræ* or cartilages) the like method should be taken. Proper instruments to support the head and upper parts of the body have been contrived by different artists, but those made by Mr. Jones appear to be the best.

Should the bones of the arm be curved, either by accident or disease, in this soft state, rollers and pasteboard splints properly applied, will be sufficient to support, and restore them to their natural form.

But if the injury extend to the hip and contiguous bones, it will not be manifest at the time, and can be benefited only by the cold-bath, and other general remedies. If this distortion should be considerable, it may, indeed, become a source of manifold evils in females, as will be noticed in another place.

PARONYCHIA, or WHITLOW.

MANY young people are very subject to a mild species of this complaint, which being perfectly superficial, is not improperly termed the *cutaneous** whitlow, and will attack the ends of the fingers, several times in a year, without any previous injury of the part. The subject is therefore introduced here only with the design of recommending a prophylactic, or mean of prevention, which I have frequently seen successful. This consists only in bathing the fingers, several times a day, in the following mixture, the moment that a sense of any preternatural heat, or pain, may be felt.

Take of Camphorated spirit, four ounces,
 Water of acetated Litharge, two drams,
 Tincture of opium, half an ounce.
 Mix them.

In the malignant, or deep seated whitlow, doubtless, the best method is to make an early opening down to the bone, which will occasion the patient much less pain than suffering the matter to make its own way
 to

* See Principles of Surgery, by Mr. Pearson.

to the surface ; which is likewise always attended with much mischief to the part.

FURUNCULUS OR BOIL.

THE common Boil only is intended here, and is noticed from its frequency in young people towards the time of puberty, who are sometimes vexed with a succession of them. They are, however, justly accounted salutary, and do harm only when repelled, or hastily dried up. If a poultice of bread and milk, therefore, be applied from the first (if the boil be in a convenient part, otherwise a gum-plaster) and a bit of yellow or black basilicon put every day into the hollow, as soon as the boil breaks, it will be properly digested, and the core, as it is called, be brought out. It is sometimes for the want of this, that another boil forms in the neighbouring parts, or the child is teased with sore eyes, or some humor, as it is termed, on the skin.

Two or three doses of purging physic should be taken as the boil is healed.

CHILBLAINS.

THIS is a complaint so well known, that it can need no description. It is generally owing to the circulation of the blood in

in the minute vessels of the extremities being checked, by a child having been long exposed to cold or wet, and afterwards running to the fire instead of recovering the natural heat by exercise. If the injury be exceedingly great, as it sometimes is when a person has lain for several hours in the snow, the circulation cannot always be restored, and some parts actually mortify. To prevent this, if possible, instead of bringing the person near a fire, he should be immediately stripped, and well rubbed all over, especially the parts most affected, with snow, and afterwards with salt and water, and be then put into bed. But I speak chiefly of slighter attacks; on the first appearance of which, known by the heat, itching, redness, and swelling of the heels, toes or fingers, country people apply warm wood-ashes between cloths, or rub the parts with mustard and brandy, which if done in time will both prevent their breaking into sores, and entirely remove the complaint. For the like purpose, rubbing the parts with a soft brush, or soaking them in warm water in which a hot poker has been two or three times quenched, and afterwards rubbing them with soap, or salt and onions, are good remedies; or embrocating them with the soap liniment, or with camphorated spirit, to two ounces of which may be added a tea-spoonful of the water of acetated

acetated litharge. But I have lately experienced the good effects of a far simpler means than any of these, and which I have hitherto never found equalled by any of the warmer remedies ; and is nothing more than the ceratum album spread on a large piece of thick, doubled lint to be applied as soon as the extremities begin to itch, or be painful.

Some children are disposed to have chilblains every winter ; as a preservative against which, if it be the hands that are liable to affected, warm leather gloves should be worn, (avoiding woollen, which in these cases is unfriendly to the skin) and above all, wearing for a few hours in the day or night, and especially when abroad in the cold, oiled silk gloves, which is the best preventative both of chilblains and of chopped hands, that has been hitherto known. But if the feet are usually the affected parts, the heels only may be covered by a piece of washing-leather, secured round the insteps, and worn day and night during the cold months ; and should be taken off only for the purpose of rubbing the parts with the brush or liniments, as mentioned above.

When the swellings are broken, it is common to dress the sores only with a little cerate, and to wait for the return of warm weather, when they usually heal of themselves ; but by this means, they often remain

main bad through all the winter, and when large, are sometimes not well till the summer is very far advanced ; and I have even seen them remain very bad in grown people, at the end of September.

After having attended great numbers in this complaint, I am satisfied that this kind of sore requires applications somewhat more invigorating, being a species of mortification ; and though it will not always endure very warm digestives like many other ulcers, yet when the chilblains are pretty large, a portion of some digestive joined with the cerate, is very friendly to them. And I have known some sores, though very small, remain long in a very obstinate and tedious state after the breaking up of a hard frost, whilst they have been dressed only with cerate, or other mild, or drying applications, as they are called, and begin to heal immediately upon adding a small portion of some warm digestive, and applying a flannel roller, without any other alteration in the plan. But if they are spread to any considerable size, nothing contributes so much to their healing, as touching the sores every day with bracing and invigorating lotions, particularly diluted solutions of steel, or tincture of myrrhe ; which in a very few days will produce kindly granulations in these, and other cold sores, though of long standing.

When

When the parts are much swollen; and the sores been long foul, it will be often necessary in severe weather, to make use of poultices, of which, those made of rye-meal and the compound water of acetated litharge are more active, and therefore preferable to mere bread and milk. If these are applied over the above dressing of cerate and digestive, and changed twice a day, the sores will heal in much less time than by any of the common applications I have seen used ; especially if the parts surrounding the sore be well rubbed with camphorated spirit. If children are not very young, purging them with a little calomel twice a week, will often expedite the healing of the sores : in the worst cases, a decoction of the bark is required.

Since this work has been in hand, I have learned the good effects of electricity in chil-blains, both as a remedy and a prophylactic, or preventative, especially in very old people, to whom they not unfrequently happen.

BURNS and SCALDS.

BURNS are mentioned by some old writers, and though a misfortune by no means confined to young people, they too often fall to the lot of infants, through the

carelessness of their attendants ; and for want of being properly treated at the instant, children often suffer exceedingly, when a fit application would have rendered the injury trifling.

When such an accident happens, the nearest astringent at hand should be made use of, such as brandy, or other spirit, ink, wine, or even cold water, till something more proper can be procured ; into which the injured part should be plunged, or be covered with pieces of cloth dipped in such liquors, which will prevent the blistering of the part ; carefully avoiding the use of olive-oil, too frequently had recourse to. As soon as it is possible to send to an apothecary, the following should be procured, and used in like manner.

Lime-water, a pint, brandy, two ounces, water of acetated litharge, half an ounce.

If the injury has been too long received to admit of much relief by these means, and deep sloughs are actually formed, a very proper dressing may be made of equal parts of Turner's cerate, and green ointment of elder ; diminishing the proportion of the latter as the sloughs are thrown off, and the sores become disposed to heal. But should the injured surface be large, or the pain, occasioned by removing the dressings, be very great, it will be sufficient to cover the parts with pieces of linen dipped in cold-drawn

linseed-oil, which should be moistened every day, and suffered to adhere till the sores are in a state to admit of being dressed in a common way.

A strong solution of soap in water has long been in use with artificers, employed in any business exposing workmen to very bad scalds ; and is a very excellent remedy—About three quarters of an ounce of soft soap is a proper quantity for a pint of water. But the soap takes some time in dissolving, and as it requires a certain proportion of boiling water, the lotion cannot be made cool enough for immediate use by the addition of the proper quantity of cold water. A remedy, therefore, more convenient, and perhaps more efficacious, which if not always in the house, may in every large town be speedily procured, may be made of olive-oil, cold water and ley of kali. Six ounces* of oil to ten of water, with two drams† of the ley will make a pint.—This quantity may be sufficient for a burn on the hand or foot, which is to be immersed, and kept about half an hour in the liquor, which will remove the injury if had recourse to immediately ; but must be repeated, as the pain may require, if the scald or burn be of some standing. Should a person be scalded all over

* Two table spoonsful contain about an ounce.

† A tea-spoonful contains about a dram.

over, and be immediately put up to the chin in a cold bath of this kind, and the head at the same time, be frequently immersed, or well washed with the liquor, very little injury would ensue.—Whatever sores may be formed, should be treated afterwards according to the foregoing directions.

LUXATIONS AND FRACTURES.

INFANTS are not only liable to these misfortunes by a fall from the lap, but the bones or joints may be sometimes unavoidably injured in the birth. There is in this case, seldom any luxation, I believe, but of the shoulders, which is not difficult to be reduced, and requires nothing afterwards, but that the limb be kept perfectly quiet. Fractures, indeed, are not quite so easily managed, and perhaps happen more frequently. The bones are yet but little more than gristle, and if strained beyond a certain degree, are easily bent, or even broken. The former is very readily restored, but I shall be more particular on the latter, as the subject is of some importance.

Fractures in the birth are usually of the collar-bone, the arm, or the leg, the treatment of the two former of which, will include all that is necessary to be observed of such as may happen in other parts.

The first, however, requires very little attention, as it will be necessary only to draw the shoulders back, confining them in that posture, by two or three pins in the clothes, and to apply a piece of adhesive, or of the soap-plaster, spread on leather, upon the rising end of the bone, and a larger piece over the first.

A fracture of the arm demands a little more attention, but will always end perfectly well. The difficulty consists in keeping the fractured ends of the bones opposed to each other, without rolling up the arm so tight as to occasion pain, or much swelling of the hand, which in a new-born infant, a very small pressure will effect. I have found no method so well adapted as the following, which allowing of a little tumor about the fractured part, without the necessity of loosening the roller, preserves the ends of the bones in due contact, without drawing the roller so tight as to prevent the free return of blood from the inferior parts of the limb.

To this end, three little splints, about half an inch in width, and an inch and a half long, may be made of fine linen cloth, five or six times folded together, to the thickness of common pasteboard ; and being soaked in a mixture of flour and white of egg, should be placed in the usual manner, along the fractured ends of the bone. Being applied
wet,

wet, they will accommodate themselves exactly to the figure of the limb, and when become dry, will be sufficiently strong to support the bones. They should be applied immediately on the skin, without the intervention of a roller, by which means, when the parts swell, which they should always do a little, there will be space enough between them to allow of it, notwithstanding the pressure from the roller, which should be applied over them. This ought to be of very fine flannel, and should not be drawn near so tight as for adults, nor will there be occasion for it, as the chief dependance ought to be on fastening the arm down close to the side, by strong pins fixed into the little gown, in the manner the surgeon may best contrive at the time. The gown, therefore, ought not to be changed, nor the arm moved but in his presence ; and if the hand is not inflamed, nor very much swelled, and the child is easy, the part will not need to be opened under eight or ten days. Till this time, the same gown should be worn, and be preserved clean by such coverings as may easily be removed. The speedy union of the bones will depend upon a strict attention to keeping the limb as still as possible ; and if it be so preserved, the accident will afford very little trouble after the first ten or twelve days, and at the month's end, the

child will move that arm nearly as well as the other.

It is very common for nurses, especially during the month, to support the lower-jaw of an infant whenever it happens to yawn, in the apprehension the jaw might, otherwise, be dislocated. This practice is, at least, an evidence of the nurses attention, and can do no harm, though I have, indeed, never known the accident happen. Should it, however, take place, either at this age, or in older children through some violence, it will occasion a very awkward appearance, and prove very distressing to the child, who will be disabled from taking any nourishment till the luxation be reduced. Nothing more, however, is required to this end, than to place the thumb of each hand in the back part of the mouth, and the fingers on the outside, under the jaw, so as to depress, and at the same time bring it a little forward, to disengage the head of the condyle, and then force the jaw suddenly back.

On CUTTING the TONGUE.

THE directions on this head, as well as the notice taken of many of the following little disorders, proceed rather from a desire that nothing on the subject of children's

dren's complaints should be omitted, than from their real importance. Some of them, indeed, have been entirely overlooked by preceding writers, and though they may seldom require much attention, it may sometimes be of advantage to know what has been serviceable in similar cases.—The instance under consideration, however, is too trifling a matter to dwell upon.—It will be sufficient to observe that the little operation, performed in order to lengthen the tongue, is very frequently called for where there is no absolute occasion for it, the confinement being seldom so considerable as to make it really necessary to divide the *frænum*, or little bridle, that adheres to the under part of the tongue. The child will suffer so very little, however, in the operation, that when it is carefully done, it will be attended with no inconvenience; and if it can afford the mother any satisfaction, it will be very proper to comply with her request. It seems therefore only necessary to add, that some little care and steadiness are required, or the sublingual veins may be wounded, and in consequence an infant may lose its life. To avoid this danger, the bridle may be divided by a small curved bistoury, instead of scissars. The handle and blade, when open, need not exceed two inches in length; and the point should be a little curved, and the back made broad, whereby

whereby the point may be easily forced through the *frænum* in the most troublesome case, whilst the back of the instrument will sufficiently press down the veins, so as to be entirely out of the way of being injured. These cautions have been judged by some people to be very trifling ; but besides that infants have actually bled to death, the following equally fatal accident has arisen from cutting too deep, which I shall therefore notice in this edition, as well as describe an instrument contrived for suppressing the bleeding.

SUFFOCATION from SWALLOWING the POINT of the TONGUE.

THE occasion of this accident has been mentioned : it is therefore only necessary here to notice the symptoms and remedy. The former are those usually attending strangulation, and come on suddenly, and without any probable cause but that of the tongue having been cut ; but to which they are seldom attributed by those, who are strangers to the complaint. The infant appears greatly agitated ; the face turns black ; and unless these symptoms soon disapear, the child goes off in a convulsion. But if they are presently removed, the infant is as suddenly

denly well ; but they generally return again, and have in several instances proved fatal.

Mr. Petit* has perhaps the credit of discovering the true cause of the complaint. The remedy consists in nothing more than bringing the tongue into its proper place, and if the infant be suckled, putting it immediately to the the breast, which will give the tongue a natural direction. Should the child be brought up by hand, the tongue should be watched for some time, at least till the bleeding shall be stopped ; the complaint taking place only in consequence of that being considerable, so as to become an inducement to the infant to continue sucking at the part.

When the sublingual veins are actually wounded, the danger, it has been said, is considerable ; and it is to Mr. Petit that we are again indebted for the best contrivance for suppressing this hemorrhage. The means consist only of a piece of ivory, in the form of a short fork ; the prongs of which should be so placed as to press against the apertures in the veins, and the other end against the inside of the lower jaw, and should therefore be broad and convex in that part, that it may keep its place.

HICCOUGH.

* *Mémoirs de L' Académie des Sciences.*

HICCOUGH.

THIS has been ranked among children's diseases, but it is, by no means, a complaint of consequence, as it sometimes is in adults. It occurs pretty commonly, indeed, in infancy, but seldom requires much attention, as it frequently comes on only after over-feeding, or in consequence of the overthickness, or sweetness of the food, and is one of their most harmless consequences. But when it depends on an acid state of the juices of the stomach, or occurs in long bowel complaints, it indicates a necessity for having recourse to the absorbent powders.

SNEEZING.

THIS has likewise been mentioned by some writers as a complaint of young children, for which Rhazes prescribes refrigerants and anodynes, but it is certainly not a common one, and indeed, I have never met with it, in the form of a disease. It may be occasioned by looking too long against a strong light, as the fire, and especially the sun, or other very luminous body. It has already been spoken of as a well known

known symptom of the measles, and of many common colds, but in neither, I believe, requires any particular attention. It is mentioned here, only because I would not pass over a complaint that has been attended to by any writer of reputation, nor leave such readers at a loss, who being unacquainted with the distinction between mere symptoms and diseases, might at any time be needlessly alarmed by it. But knowing nothing farther of it myself, and having no idea of its being a complaint of much consequence in this country, I have not chosen under such circumstances, to be a mere copyer from others. It may, however, in conjunction with other causes, give rise to the following complaint in older children.

BLEEDING of the NOSE.

I MEET with this complaint also amongst old writers, and therefore bestow a few words upon it, though it is not often of much consequence, I believe, before the age of puberty.

If a child be feverish, or otherwise unwell, the hemorrhage is often a mere symptom arising from the complaint under which it labours, and will disappear upon that being properly treated. But a bleeding at the nose sometimes takes place in the healthiest children,

children, the vessels of this part being weaker than those which are covered by the true skin, and often afford a salutary outlet, in case of *plethora*, or fulness of blood, and therefore usually contract when the intention of nature is answered; after which, a dose or two of cooling physic should be given. But it may be sometimes necessary to draw a little cold water up the nose, to which some vinegar may be added, and to apply some thing cold to the upper part of the back. Should these little remedies fail, the head may be bathed with cold vinegar and water, and the nostrils be stopped up with dossils of lint, which on urgent occasions must be dipped in warmed oil of turpentine, or other styptic liquor, and must extend to the posterior aperture. The last means will almost always succeed; but if otherwise, some blood should be taken from the arm, if the pulse does not forbid, the feet be bathed in warm water, and the body be kept open by manna, and cream of tartar, and the patient should live for a little time pretty much upon whey, vegetables and milk; at least, he should not dine wholly upon animal food—The bark will in some instances be proper.

HEMORRHAGE from the NAVEL.

I HAVE two or three times seen a complaint at the navel of new-born infants, which is scarcely worthy of mention, but from its being an uncommon one. This is an oozing of blood from the part, after an unkindly separation of the chord, and is owing to the shooting up of a soft fungus, which prevents the skin from covering the divided vessels in the manner it otherwise does. This hemorrhage has sometimes continued for several months, and in some instances, in such quantity as to prove alarming to the friends of the child, lest it in the end be injurious to its health. The little vessel from whence the blood issues, lies always so deep that it cannot be secured by ligature, nor be conveniently cauterized ; the latter of which, indeed, would be very disagreeable. I have conveyed the lunar caustic, however, to the part, but the bleeding has always returned. Nothing farther is necessary, than to adapt a proper compress, and secure it by a sticking plaster and bandage ; which should be continued for two or three weeks.

There is indeed another kind of hemorrhage of more importance, but this seems to be sympathetic, and is attendant upon infants who are in a bad state of health dur-

ing the month, and is, perhaps, a bad sign. It takes place where the chord has been apparently well healed ; but the skin afterwards gives way, and the bleeding is much more considerable than in the former. It requires, however, nothing more than the application of common styptics, with proper compress and bandage. The bleeding not appearing, in the least, to be critical, ought to be suppressed as soon as may be, and whatever complaint the infant may labour under, be treated according to its kind.

HERNIÆ, or RUPTURES.

RUPTURES may take place in different parts, but they usually appear at the navel, or the groin. The former is sometimes complicated with the ventral hernia near the part, and is occasioned by the separation of the *recti* muscles, the *linea alba* being there deficient ; but it seldom extends far above or below the navel. The simple navel-hernia is a very common complaint, which if immediately attended to, is easily cured, perhaps merely by the use of the cold-bath : but if neglected, may prove troublesome as the child grows up ; especially to females. It will be sooner cured, however, if treated like the former complaint, by adapting a pyramidal compress, made of round

round pieces of good sticking-plaister, spread upon thin leather, with pieces of card placed between them ; or what is more easily prepared, and is adapted to poor people, is a piece of bees wax as broad as a shilling, and half an inch thick ; the upper part of it may be round, and the other flat, which should be placed on the navel. But if the child be a twelve-month old, these remedies will then require a pretty tight bandage round the waste ; and such a compression, I have frequently observed nurses afraid of, who often loosen the bandage so much as to render it of very little use. On this account I have for some time past recommended Mr. Squire's elastic bandage, which if this rupture be complicated with the *ventral*, or belly *hernia*, becomes the more necessary, and sitting quite hollow on the sides, and making no kind of compression but on the part affected, and the opposite point of the back, perfectly answers the end, without the help of a surgeon. The child should be daily put into the cold-bath, for some months, after leaving off the bandage or truss—I have often observed startings of the navel happen to infants, in whom the skin has been found running a certain way upon the navel string ; on which account, nurses ought to be particularly careful in such instances, and keep the part more than ordinarily confined.

Ruptures at the groin are of more consequence, yet may be safely left without a bandage, especially as the cold-bath alone generally cures them when they happen to children before they go alone. In early infancy, there is likewise some difficulty in retaining the trusss on the part, and it is continually liable to be wetted. Should a rupture, however, be very large, and the infant usually fretful and crying, recourse may be had to a steel truss; to which it will be necessary to pay some attention, lest it slip out of its place, or the rupture fall down, and be bruised by the pad. After two years of age indeed, when children begin to take more exercise, the use of a truss seems to be absolutely necessary, of which those made of steel as improved by Mr. Squire, are incomparably the best.

HYDROCELE, or WATERY RUPTURE.

THIS is a distension of the *scrotum* of a nature similar to the hydrocele of adults, and when it falls to the share of infants, I believe, it usually appears at the birth. It is frequently mistaken by midwives and nurses for a common rupture, who therefore advise a linen bandage to be applied in the usual manner. It is, however, easily distinguished from a rupture, by the

the tumour being transparent ; without pain ; and from not retiring upon pressure, or not being increased by the crying of the infant.

Though I have said it *commonly* makes its appearance at the birth, and that the tumor does not retire upon pressure, I think I have lately seen an instance to the contrary.* In this case, I had occasion to examine the parts very attentively at the birth, on account of a little mal-conformation of another kind, and neither then, nor the next morning saw any appearance of hydrocele ; nor was it discovered by the nurse or mother till six weeks afterwards, though the parts, for the reason above mentioned, were frequently examined. About this time I was sent for in haste, on account of the appearance of a large hydrocele, which, however, by the mother's report, was before I got there, greatly diminished. There was, nevertheless, about three tea-spoonfuls (as I imagine) of water in the *scroium* which from this time was distended in different degrees, as the water happened to retire, more or less, through the rings of the muscles, which I apprehend must have been preternaturally open ; though no portion of the *caul*, or intestine, I believe, ever

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* Mr. *Le Febure de Villebrune* met with it in a child of twenty-two months old.

descended ; and the complaint disappeared in a few weeks, by only dashing the parts with cold water, three or four times a day.

—This infant was a twin ; and it is remarkable, that the other had likewise an hydrocele, which was not discovered for three weeks after the former ; but was much smaller and got well by only the like gentle treatment.

The hydrocele is a harmless complaint, and would probably always disappear of itself in the course of a few months ; but may much sooner be dispersed by some astringent lotion. The water of acetated ammonia has succeeded with me perfectly well, and I have sometimes made use of compresses wetted in vinegar and water, with the addition of a little spirit, as the skin has been able to bear it. Perhaps the addition of crude *Sal ammoniacus*, as lately advised by Mr. Keate, in the treatment of adults, might assist the absorption of the water. The smoke of burning gum benjamin received upon flannel, and applied to the part, is likewise a good remedy. But the speediest method is to puncture the bottom of the tumor with the point of a lancet ; which, as it may be done with perfect safety, and with little pain to the child, is often preferred by the mother, as it instantly removes a blemish which cannot but be unpleasant to her, whenever any other person may chance to be

be witness to it. In whatever way the water be got rid of, I never knew it return, nor the child suffer any consequent inconvenience ; though the complaint is so common that I have seen it in many score instances, and cured in different ways.

RETENTION of the TESTES.

THIS is a tumor in one, or both groins, and is another affection resembling the *hernia*, and is noticed on that account. As the application of a steel truss, or, indeed, any other bandage might here be attended with bad, if not fatal consequences, it is of importance that parents should consult some medical person, whenever they suspect a rupture.

This complaint being generally owing to a preternatural stricture of the rings of the abdominal muscles, or to a want of due action in the *cremaster* or *gubernaculum*, I have nothing to recommend, unless it be in a negative way, to forbid any rude handling of the part, or attempts of the nurse to force the testicles into the scrotum. Should any thing of this kind be necessary, it should be done by another hand. In the course of a few weeks, or months, however, the obstacle, of whatever kind, usually

ally gives way ; though sometimes indeed the part remains confined through life, and its unnatural position is certainly attended with some inconveniences, and a greater chance of injury to the *testes* ; of which I have seen more than one instance in adults. Should inflammation take place, in consequence of any accident, during infancy, every proper means of counteracting it should be immediately had recourse to, such as gentle laxative medicines, and sedative embrocations and cooling poultices, made of the compound water of acetated litharge.

TUMEFACTION of the PREPUCE.

THIS little complaint, like the hydrocele, arises from extravasated water, and is a partial *anasarca*, or dropsy of the skin, and if it be not attended with inflammation, nor owing to a stone sticking in the passage, as it sometimes is, it never proves of any consequence, and is mentioned only because it is always alarming to parents.

It may be washed frequently with the compound water of acetated litharge, or the part be wrapped up in a poultice of that kind, and the body be kept open, which usually removes the complaint in two or three days ; but if it should not, the part may be lightly scarified, and afterwards fomented.

fomented. Should it arise from inflammation, as in the *erysipelas infantilis*, the inflammatory cause must be properly treated. If from a stone in the passage, the stone must be extracted, if within reach, or if otherwise, it should be forced back into the bladder.

PROLAPSUS, or PROCIDENTIA ANI.

THIS is a falling down of the internal coat of the lower bowel (this coat being much longer than the others, and full of folds) and is either owing to its laxity, or to irritation. It is no uncommon complaint, nor usually difficult of cure, being generally a symptom of some other, such as worms, or other foulness of the bowels, or has been induced by rough purges, diarrhoea, long costiveness, a stone in the bladder, or other irritating cause, and is usually preceded by tenesmus, or needing; to each of which the proper remedy must be applied, or the cure of the prolapsus will be attempted in vain.

But if the complaint should remain, after the irritating cause shall have been removed, it will then depend merely upon a relaxation of the part, arising from the long habit of descending every time the child has gone to stool, and is, in general, easily cured

cured by an astringent lotion. To this end, a compress of cotton, or soft tow, wrung out of the dregs of red wine, to which may be added a few drops of the water of acetated litharge, should be often applied, and secured by a linen bandage, so as to make a firm compression on the part; the compress may also be sprinkled with fine powder of myrrh, frankincense, and dragon's blood, or receive the smoke of turpentine cast on burning coals. Or, suppositories may be made of powder of balau-stines, red rose leaves, and oak bark, in honey, and introduced into the bowel, after going to stool—It may be found expedient to have the part supported at such times, by a servant placing a finger on each side the gut: but this caution will not be necessary unless the complaint has been of long standing, or the descent be considerable.

When this is the case, astringent fomentations and injections will also become necessary. These may be made of a decoction of oak-bark, which must sometimes be rendered more powerful by the addition of a little alum; the quantity of which should be increased as the part may be able to bear it. In children of eight or ten years old, who take much exercise, recourse may be had to Mr. Gooch's suspensory, instead

of

of the linen bandage above recommended.

DISCHARGES from the VAGINA.

THESE are either *sanguineous, mucous,* or *purulent.*—As I speak professedly only of appearances before the age of puberty, I have merely to remark on the first, that female infants have sometimes such a discharge from the vagina a few days after birth, which appears to be of no consequence. Should it, however, on any account, be thought necessary to prescribe something, a little testaceous powder, or magnesia, according to the state of the bowels, will be sufficiently astringent, as the discharge always disappears in a few days.

Children of five or six years old, are subject to a *mucous* discharge, resembling the genuine *fluor albus* of adults, which will in some instances be in an excessive quantity, so as to run through all their clothes ; and is sometimes, though rarely, tinged with blood. If it were suffered to continue, it would probably injure the health, but, I believe, may always be cured, by one or other of the means recommended for the next, which may be called *purulent gonorrhœa.*

This

This is no uncommon complaint in children of three or four years old, and is then, in general, easily removed by a little cooling physic, and keeping the parts perfectly clean. I have sometimes made use of a lotion of the compound water of acetated litharge, which I believe is preferable to most others, if had recourse to in the commencement of the complaint ; and if there be any excoriations, they should be covered with the *unguent. cerussæ*, spread upon linen or lint.

When the *purulent* discharge makes its appearance later, which it will do at eight, ten, and even twelve years of age, and is much discoloured and fetid, it gives rise to a suspicion which young practitioners cannot be too guarded against. There are, indeed, instances of little girls, not more than six years old, being injured and it is of consequence to make a judicial discrimination ; but there are on the other hand, instances of a very suspicious appearance, as late as the age of thirteen or fourteen, where no injury could be received without the consent of the party, who is generally perfectly innocent, and where, therefore, the least suspicion would be very distressing to her, and might make a whole family miserable.*

3 Discharged

* Induced by motives of humanity, I hope I may be permitted to add a word or two more on this sub-

Discharges with the worst appearances, are frequently removed in eight or ten days, merely by the treatment above recommended, but I have seen some cases in the youngest subjects, of a bad habit of body, where mercury, as a deobstruent, has proved useful, though I could not have the least suspicion of a venereal taint. In such cases, I have found Ward's white drop a more convenient medicine than any other preparation of mercury : it may be given in the dose of half a drop, and may by degrees be increased to two and even three drops, once or twice a day, for two or three weeks. But where this has failed, I have only to add, that I have been always able to succeed by giving

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ject, to professional readers ; whose prudence and information may not only prevent a vast deal of unnecessary distress to many worthy families, but may even save the life and character of another party suspected of criminality. For, besides many instances wherein inattention or ignorance might give rise to injurious suspicions, there are cases which call for much experience and attention in order to form a just and decided opinion. I have, indeed, known the discharge to be so ill-coloured and fetid, and attended not only with great pain and inflammation, and excoriations in different parts, but such tumour and other appearances of violence offered, about the *furca*, that had the patient herself advanced any charge, I fear, I should not have hesitated to have joined in with it ; and yet from the event, as well as the whole history of the case, it has been very evident, that no kind of injury had been received.

290 *Of the Venom of Insects,*
a decoction of the bark, with *balsam. copai-*
bae, ovi vitel. solut. which is also an admir-
able medicine in the *fluor albus* of adults.

OF THE VENOM OF INSECTS AND OF CER- TAIN ANIMALS.

THOUGH the following accidents, like some others before mentioned, are not confined to any age, they are, at least more formidable when they fall to the lot of little children. It is hoped, therefore, it will not be thought trifling, to recommend some suitable antidote against the bite, or sting of venomous insects, particularly the wasp, gnat, and other flies ; especially as they happen frequently to children in the country, at a great distance from medical help, and often alarm parents exceedingly. Indeed, for the most venomous, such help can rarely be had before considerable inflammation has taken place ; after which it will take its course, and will continue, if occasioned by a gnat, three days, and by some other insects, for six ; though the tormenting itching may be allayed much sooner by the means of proper applications. If the bite should be on the eye-lid, the inside of the lip, or ear, very troublesome symptoms may follow, and the infant will be vexed by it exceedingly.

In the absence of better remedies, the first

first application may be, of the strongest spirit at hand, three parts, two of vinegar, and one of sweet-oil ; taking care it do not get into the eyes. But as soon as may be, the following should be applied very frequently ; which will check the progress of the venom, and allay the pain and itching immediately,

Of camphorated spirit, a table-spoonful,
Of distilled vinegar, and of laudanum,
each a tea-spoonful ;

to which, if the injury be not too near the mouth, may be added twenty drops of the water of acetated litharge.

The bite of the common bug which infests crowded places, not only occasions a tormenting itching in children of a very delicate skin, and in certain grown people newly come from open villages, but will also sometimes raise blisters as large as pigeons eggs, and will inflame the parts for several days. The best application, I believe, is vinegar with a small quantity of olive-oil, and a few drops of laudanum : oil alone, would rather increase the size of the blisters.—Whereas, for the highly venomous bite of the viper, the immediate application of olive-oil is the well-known, and certain remedy.

Under the painful impressions of an awful accident that happened in my own family, at the time I was engaged in this part of the work, (though I thank God, the alarm terminated happily,) I cannot avoid dropping a few words on the envenomed bite of *morbidly* enraged animals. It is not my intention, however, to advert to the peculiar nature of this most malignant poison, nor to enumerate the many deceitful remedies that have been at different times proposed with an air of infallibility ; since dwelling long on this unpleasant subject would ill accord with a tract of this kind. Nor is it my design to propose any new remedy, but rather to lament, that the best preventatives should be so ill attended to, particularly amongst the inferior class of people, to whom this dreadful accident happens oftener than to the rich. And on this account, as well as the subject being rarely treated of, and seldom falling in the way of any but medical people, (who are often consulted too late) it is hoped, the intention will apologize for obtruding a friendly caution in this place. For, after a good deal of experience, and much inquiry and reading on this subject, I am confident, that nothing ought, in any instance, to be depended upon, but taking out the injured parts, by the knife or caustic ; which if duly and timely effected, cannot fail to prevent every evil apprehended. But whenever

whenever the situation of the wound may not admit of going deep enough to insure success, or too much time may already have elapsed, the stronger mercurial ointment ought to be rubbed in very freely, so as to raise a salivation ; which has not only been thought to have proved an effectual prophylactic, but to have also succeeded even where evident symptoms of infection had taken place.*

I have only to add, (what it is, indeed, a great satisfaction to be able to say,) that, dreadful as this accident is where the poison has taken effect, it is evident, that only a very small proportion of those who are bitten by animals actually enraged, receive any injury from it. Fortunately, the clothes sometimes prove a defence, by wiping off the foam from the animal's teeth ; at others, it does not happen to be forced into the wound, or is not yet possessed of a poisonous quality ; or lastly, it is not absorbed, or the system may not be in a state to be infected. These assertions are supported by numberless facts, though much less frequent, perhaps, in London, than in some other parts, especially on the continent, where such animals are very commonly met

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with

* See *Histoire et Memoires de la Société royale de Médecine.* Année 1783. 2^{de} partie—Tiffot. Dr. Layard, &c.

with, and often wound great numbers of people.

It is, doubtless, the uncertainty of the effects attending such injuries, that has supported the credit of many fallacious remedies on this melancholy occasion. Encouraging, therefore, as the above circumstances certainly are, it would, indeed, be madness to confide in them, where the proper remedy may be made use of in time ; and though I should wish to conceal rather than spread these acknowledged facts, could I think they would have such an effect, it is on the other hand, no small satisfaction, that such encouragement may be justly held out to those who may be under any alarm for themselves or their friends.

There are several other diseases attributed to young children, recorded by Rhazes. *Paulus*, *Oetius*, *Fabricius ab Aquapendente*, *Celsus*, *Primerose*, and other less ancient writers ; of some of which I know nothing but from their own account of them, or that they are needless distinctions of diseases already mentioned, which the ancients were very fond of making, especially in complaints of the skin, but can answer no practical end. Among the diseases mentioned by these writers are, *Lentes*, *Hispiditas*, *Achores*, *Favus*. *Psforophthalmia*, *Impetigo*, *Ranulae* or *Batrachos*, *Seriasis*, *Paristhmia*, *Parulis*, *Inflatio*, *Crinones*, *Malum Pilare*, *Phthiriensis*, *Hydroa*, *Macies*.

The six first are affections of the skin, or the eye-lids. *Achores* and *Favus* * are a sort of *Crusta-Lactea*, or milk-blotches, so called by some, when of a dark colour, or ulcerated, and extending to the head, and *Impetigo* when it attacks the chin ; but by others the term *Achores* is applied only to adults. *Psfrophthalmia* is confined to the eye-lids, and is so named by *Celius*, and others after him.

Ranula is an inflammatory tumor of the parts under the tongue, and according to the ancients, particularly of the veins : it sometimes ulcerates, but often presents a species of soft, and lax *œdema*. *Celsus* says the tumor is sometimes included in a cyst, which must be taken out ; the operation for which is fully described by *AQUAPENDENTE*. Although such seemingly different accounts are given of this complaint, the *Ranula* appears to be no more than an infarction of the sublingual glands, and I believe, is not very common in infants, and indeed is mostly an epidemic complaint. I have seen it however, in this country, in adults, of the size of the largest walnut, and it then becomes very troublesome, both in speaking and

* The *Tinea*, or scald-head, so called when the scabs have resembled moth-holes in cloth, and *Favus* when like an honey-comb, has been also termed *Achores*, when the discharge has been unusually acrimonious.

and deglutition. When larger it is usually soft, and contains a fluid, and sometimes calcareous concretions, owing to an obstruction of the salivary ducts. In this case, it needs only to be opened, and to be cleared of all the concretions ; but if it be hard, the whole tumor must be extirpated. *Serias*, from *σίρης*, *quia quasi excavatum cernitur* —PAULUS (*Lib. i.*) describes it as an inflammation about the *cerebrum*, in which the brain is said often to mortify within three days ; but if it should not, the child may recover. *Paristhmia* is an inflammation of the tonsils, or throat, but is certainly not common in this country ; it is hinted by Hippocrates in his book *de Dentitione*. *Paruluis*, a complaint described by Paulus as a painful tumor about the gums ; Rhazes calls it a blister in the mouth. *Inflatio* is a distention of the skin from wind or water after a child has been reduced by long illness. *Crinones*, or *Grubbs*, is little known as a disease, I believe, in Europe. It is probably a secretion from the sebaceous glands, and appears on the arms, legs and back of sucking children ; and is absurdly enough thought by some to be produced by insects :* older children are often found to have some appearances of it, but it seldom affords them farther trouble than a little itching, and they amuse

* Astruc. Lieutaud.

Crinones.

amuse themselves by forcing out of the skin what they call worms.—In the instance of infants so affected, rubbing the parts with a coarse cloth, by the fire-side, is all that will usually be necessary in northern climates.

Though this kind of affection is generally of little consequence, whether in infants, or young children, I have, nevertheless, known it prove a very troublesome complaint in older subjects, especially in females about the time of puperty. In such instances, the whole neck, back and breast will be covered with little black spots, which gradually inflame till the parts become totally covered with heated pimples. These at first itch intolerably, so as frequently to keep the patient from sleep through the greater part of the night ; and in consequence of being continually rubbed, turn to little inflamed and angry boils. When some of these have discharged the sebaceous matter, and are healed up, others will arise, in succession ; and at the end of several months, the superior parts of the body are covered with them.

After making trial of common purges and alteratives, to no lasting advantage, I have cured the complaint by washing the parts morning and evening, for a few days, with the lotio saponacea, and afterwards rubbing in a little unguentum hydrargyri nitrati ;

trati; and when the soreness has gone off, making use of a proper flesh-brush, for two or three months. The patient may at the same time take a few drops of the aqua kali, two or three times a day, in a cup of sassafras-tea, or milk and water.

A complaint sometimes confounded with the former, is that called *Morbum pilare*, and is supposed to be spoken of by Hildanus, as sadly tormenting one of his children. It is also mentioned by Parey; but I have never met with it myself. It is said to be owing to hairs not duly expelled, which stick in the skin, especially the backs of young infants, whom it torments by an incessant itching, and sometimes raises small tumors. The cure is said to consist in fomenting the parts, and then pulling out the hairs with a pair of nippers.

Phthiriasis, or *Morbus pediculosus*, is a complaint I should not have mentioned, were it not sometimes found very troublesome, and the heads even of children who are kept the most cleanly, much pestered with these ugly vermin. It is not therefore intended to treat of it as a disease in other parts, and will be quite sufficient to say, that the cure is, in general, very simple, and requires only the hair to be sprinkled for a few days with the powder of *staves-acre*; a remedy that is kept a secret by some foreign perfumers, who sell it at a great price.

Hydro

Hydroa, or *Sudamina*, is a trifling eruption from the sudorific glands. *Macies*, or according to some, *atrophia lactantium*, is applied to a decay, said to arise either from worms, (and is then called *atrophia verminosa**) or to the unsuitableness of the breast-milk, which though it may be good in its kind, will not prove alike nourishing to all children. The milk is then properly directed to be changed, upon which it is remarked, the child will often recover. This disorder is, however, a true *atrophy*, or *maraasmus*, from whatever particular cause, and into which an infant may fall in consequence of almost any of the complaints treated of in the forgoing pages, when they may happen to prove of very long continuance.

I have now gone through all that have been usually ranked among the disorders of infants, and have taken sufficient notice, as I apprehend, of every complaint worth mentioning, that I have met with either in my reading or practice; and may flatter myself this little tract will be found to possess the advantage of compleatness above every work of the kind. † That nothing may be overlooked, it remains to take notice of some

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* See Harris.

† Should the intelligent reader recollect any disorders of consequence that are overlooked, or conceive there are any material mistakes in the description

ENCEPHALOCELE, or HERNIA of the BRAIN.

MANY infants come into the world with some parts imperfectly formed, and never more commonly than in the upper part of the skull. If the deficiency be very great, and accompanied with a like want of brain, such fetuses fall under the class of Monsters, and being never born alive, are not subjects of this work.

The *bernia* of the brain, on the other hand, is met with in infants otherwise completely formed, and is generally curable.

The public is indebted to Mons. Ferrand for an accurate description of this complaint, given in the 5th. volume of the *Memoirs de L'Académie royale de chirurgie*.

The *Encephalocele* is a soft circumscribed tumor, usually of a round form, and correspondent in size with the extent of the deficiency of *cranium*; to which the complaint is owing. It is without fluctuation,

tion or treatment of others, and would be at the pains of making the author acquainted with them, his strictures will be thankfully received, and duly noticed, should the author live to revise another ition.

or discolouration of the skin, but is attended with a perceptible pulsation of the brain, which synchronizes with the pulse. The tumor retires and disappears upon pressure, and is always situate either on one of the fontanelles, or in the course of one of the sutures, and is never larger than a pullet's egg. Where the defect of ossification is very considerable, a much larger portion of brain is consequently protruded, which strictly speaking, it were less proper to call a disease, than a fatal mal-formation, as it is pertinently remarked by Mons. Ferrand ; and no more resembles the true *encephalocele*, than an *eventration* resembles the common intestinal *hernia*. It will be very necessary, however, carefully to distinguish this incurable evil from other soft tumors of the scalp, presently to be noted, which it very much resembles ; the latter having frequently the like precise feel of a bony margin around the tumor, as is common, indeed, in cases of extravasation upon any solid surface. The tumor is also colourless, and often as large as in the fatal mal-formation, but has a considerable fluctuation, and is farther distinguishable by the tumor not retiring upon pressure, nor being attended with any pulsation.

The *Encephalocele* is, indeed, easily distinguished from them both, by the brief description above given of it ; and fatal as it

would be were it left to itself, it requires only to be properly understood, in order to adapt a rational and effectual remedy, which consists only in a careful and due compression of the part. This may be effected by the application of a piece of lead, somewhat larger than the tumor, and pierced with holes, that it may be sewed to the child's cap. The compression should at first be very moderate, and always such as may not give pain to the infant, nor disturb any of the natural functions; and may gradually be increased as the tumor shall retire. This is all that is required from art, the cure being the business of nature, which if the child continue healthy, will proceed in the work of ossification, and in due time will fill up the vacancy in the skull. The protrusion of the brain was before an obstacle to this process, whilst the injury that tender organ must sustain by the pressure from the sides of the bone, exposed it to all the evils which compression never fails to produce; and which it were needless to enumerate in this place.

TUMORS of the SCALP.

THREE are other tumors on the heads of new-born infants, which it were improper intirely to pass over. One kind

is

is occasioned by long compression in the birth, is of different sizes, and the skin is always discoloured, but seldom requires much attention, as these tumors frequently disappear in a few hours. If large, it is common to bathe, or foment them with red wine, brandy and water, or vinegar, and in general they gradually subside, though sometimes not perfectly for several days. Some of them, however, are of more consequence, and concerning the treatment of which practitioners have differed; the absolute impropriety of opening any tumors arising from compression having been conceived of by many. On the other hand, I believe, it may in some cases, be really necessary, in order to prevent a troublesome fungous sore, and even a *caries* of the skull. The discrimination, however, is sufficiently obvious, such assistance being required only where the above remedies and compression have had no effect, and the tumor is found sensibly to increase day after day, which in some instances has been the case to the end of the month. Such growth is always owing to the extremities of the arteries ruptured by long compression, being still open, and pouring out an ichorous fluid into the cellular membrane, and thereby keeping up and increasing the original tumor.

Upon opening the integuments, a bloody fluid is led out, and the tumor nearly subsides,

sides, which afterwards requires nothing but moderately astringent applications and pressure, which should be continued for a little time after the aperture is closed.

Another kind of tumor has been hinted, which has a more unfavourable appearance; and of which it may be proper in this place to take a little farther notice. These tumors contain a kind of serum, and are often very large, but without that discolouration of the scalp and bruised appearance, that there constantly is in those last described, nor do they, indeed, seem to arise from compression; I have, at least, seen them extending over a fourth part of the head, and raised a full inch from the skull, after the shortest and most easy labors. To the description before given of them it may be added, that this kind of tumor, I believe, will always subside very kindly, though sometimes not completely, for several weeks. It usually begins to lessen, however, in six or eight days after birth; and as it subsides, more and more of the skull may be felt, from day to day, in proportion as the absorption of the fluid takes place. To assist nature, therefore, in this operation, embrocations of vinegar, crude sal ammoniac and camphorated spirit should be made use of, with a gentle compression of the part, as well as keeping the bowels properly open.

LYMPHATIC TUMORS on the HEAD and SPINE.

THREE is another kind of tumor appearing sometimes on the head, and at others, on some part of the spine, which is not owing to accidents in the birth, but is of a morbid nature. These tumors contain a lymph, and are attended with evident fluctuation, as may be discerned by the touch; and unless they are exceedingly small, ought in no case, I believe, to be punctured, or even removed by ligature, though adhering only by a small pedicle. Those on the spine of the neck, or back, or on the loins, if they do not arise from the *dura mater* inclosing the *medulla spinalis*, seem to originate at least from the *periosteum* of the spine; and the issue having some morbid source, will be kept up after the tumors are opened, or even totally extirpated, and preventing the sore from healing, the infant sinks under the discharge, or dies in convulsions.

But there are other tumors of a similar appearance, which being nevertheless of a different kind, may be sometimes safely extirpated, and will be noticed below under the head of *Spina Byfida*, to which likewise they bear a considerable resemblance.

SPINA BYFIDA and PARENCHYMATOUS
TUMORS.

THE *Spina byfida* is too well known to require much to be said upon it. It is a fatal mal-formation, and seldom admits even of much temporary relief, though some evils may be prevented by pointing out the most innocent applications.

It is of two kinds, open and occult. They both arise from deficiency of bone in some part of the spine, usually about the loins, or *os sacrum*. The ulcerated ones are of a deep red colour, and in figure and size resemble the mouth when the lips are drawn together, and the angles brought towards the centre. When the *spina byfida*, is occult, or the skin is yet intire, it is of a scarlet, or sublivid hue, the tumor unequal, pretty firm in some parts, and in others raised into little vesicles, and often resembles a cancer just about to break into a sore. It is well known, that in this state, the skin ought not to be opened, as it would certainly hasten the death of the infant. On the other hand, every mean should be made use of to prevent the skin from giving way, which should therefore be dressed with cooling, astringent and drying applications, in the form of lotions and powders, and the part

part afterwards covered with a saturnine cerate; which are likewise the properest applications afterwards, as well as for that which is open from the birth, and will, at least, afford some ease, as well as tend to prolong the life of the child. Such treatment is also the more proper, from the hope that the tumor, whilst occult, may possibly be of the more benign kind, now to be noticed.

These I have termed *parenchymatous tumors*; they appear on different parts of the spine, but more commonly near the neck or *os sacrum*, are accounted *marks*, and sometimes, it has been said, resemble the *spina bifida*, but are not always of such a morbid nature as to prove certainly fatal, though it is probable, they all might, if left to themselves. As I design, however, to treat only of such as will admit of some remedy, I shall mention only two.

The first is a tumor on some of the *vertebræ*, usually of the neck, or the first of the back; it is of a sublivid hue, unequal, internally spongy, and very vascular. I saw one of this kind some years ago, in consultation with the late Sir Cæsar Hawkins, who advised to preserve the skin unbroken, as long as it should be possible, which he feared was all that could be done for it; and to this end, recommend the free use of the compound water of acetated litharge.

It

It was then about the size of a crown-piece, and not raised very much above the level of the surrounding parts. The tumor, however, increased, and the skin not long afterwards gave way, and the child became ill; in consequence of which the late Dr. Hunter was desired to give his opinion, who advised the tumor to be taken out, as the only chance for preserving the child's life: but the father disapproved of the operation. The part soon began to bleed a good deal at times; in order to suppress which, as well as to lessen the tumor, which was now considerably more prominent, I sprinkled it with the following powder, r. *Bol. Armen. pulv. Catechu* à 3*j.* *Allumin. rup.* 3*j.* *Misce.* Over this, compresses wetted as above were applied frequently through the day. These would sometimes adhere for several days owing to the blood and powder forming a sort of paste, till a fresh oozing from the vessels loosened them; at which time the bleeding returned, and the applications were repeated: by the continuance of which, however, for seven or eight weeks, and compression with a piece of thin lead, the vessels gradually shrunk, and the discharge being dried up, the part was happily skinned over, and the child recovered its health.

I have lately seen another tumor of this kind, which was treated in a different manner. It was seated on the last *vertebræ* of the

the back, and was apprehended to be the true *Spina bifida*: but as no part of the bone could be felt, nor the tumor by pressure, be made to recede, I hoped it might be otherwise, and ventured to advise taking it off, as the only chance the infant had for its life. This was accordingly done when the child was about eight days old, and though a good deal of blood was lost in the operation, from a deep seated artery, the sore at the end of the month was perfectly healed, and the child soon afterwards became as healthy as any other in the family.

*On the HARE-LIP, and other EXTERNAL
BLEMISHES, or COMPLAINTS, supposed
to be MARKS of the MOTHER.*

THOUGH it be somewhat beside my purpose, to treat expressly on surgical operations, I cannot close this part of my subject without taking notice of the *hare-lip*, and other very common blemishes, if it were only for the sake of adding my testimony to that of a sensible modern writer, * who has in an able manner, though not with equal success, combated the unhappy prejudices of mothers in relation to marking their

* Dr. Hugh Smith.

their children ; which they always imagine to be owing to a violent impression from the sight of some disagreeable object, or to a disappointment in something they may have longed for, during their pregnancy.—And I have chosen this place for such observations as I have to offer on this head, because the *bare-lip*, and a few other of the blemishes remaining to be noticed, bear that resemblance to objects around us, which is wanting in those before mentioned.

The repeated experience of every attentive observer, has uniformly militated against the tormenting suspicion alluded to, but still it prevails, though only to the injury of those who ought, for their own sakes, to be persuaded to the contrary. Every man long in business has known many instances of affectionate mothers, (for this needless distress falls only to the lot of such) who have tormented themselves for six or seven months together, in the painful apprehension of discovering some sad blemish in the child, (and on this account have trembled to look on it when it has come into the world) which has afterwards proved to be as perfect as they could have wished, and as the more dispassionate amongst their friends have all along ventured to foretel. On the other hand, where children have been born with some real blemish, it has never been suspected by the mother, unless now and then in

in a most timid person, (who has always bred in fear on account of some disagreeable object or other she has seen), or else the blemish has turned out to be something *perfectly irrelative* to it.* And here it ought to be noticed, that where a child has really been

* Among several instances of such blemishes, in the British Lying-in Hospital, we have had some remarkable ones of the *intire ignorance* of any such supposed cause. In one, the infant was more marked than almost any one I had ever seen ; but I shall only notice, that the eye-lids, part of the nose and temple, and the greater part of one of the cheeks, were as black as ink, and exactly resembled a dry gangrene of the parts. In a recent instance, the extremities were uncommonly ill-formed, and not a little resembled those of different animals ; but the mothers of these infants had gone on to their full time, without their having received any fright they could recollect, or suspecting any thing amiss in their children.

I should not, indeed, have ventured, even in a note, to have particularized such deformities, but on account of their aptness, and in the hope of preventing rather than creating fears and suspicions, in women of peculiar sensibility. For these children were really so disfigured, that a lively imagination, or a mind strongly impressed, might not only have conceived in them a great resemblance to many objects, but it is more than probable, that the parents must have actually noticed not a few such, during the period of gestation—Where any such deformity, therefore, may actually have taken place, I only wish ladies to be persuaded, that such sights have not been the true cause of it, nor can such objects, therefore, contribute to the production

been marked, and the mother has insisted on her having seen, and been frightened by an object which the blemish has resembled, it has, (to the best of my knowledge, at least) appeared always to be an after-thought, by which the supposed occasion of it has been discovered ; and has not been taken notice of before-hand. It is, however, the farthest from my thoughts to upbraid the sufferer on this painful occasion, or to tax any wilful giving way to suspicions, into which, I am persuaded, their feelings alone insidiously betray them. I wish only to obviate the influence of a sentiment that I take to be without sufficient foundation, and to which nothing but length of time, and prescription, could have given a sanction.

That

of the like appearances another time.—In this view, I cannot help observing, that only a few days ago, a lady of rank acquainted me, that she had passed almost the whole term of gestation in the apprehension of her infant being born with a *Hare-lip*, on account of her having been daily met by a labourer working in her own grounds, who had such a blemish. In this instance, the imagination seemed to have done its utmost ; as the lady conceived she met this man oftener than any other, and that she could not avoid him walk whichever way she might ; and in consequence had his image continually before her, either in reality or in recollection ; and was kept under a continual alarm by it. It is needless, possibly, to add, that the child was born free from the apprehended blemish.

That there are blemishes which bear a resemblance to various objects around us, daily experience has proved; though the true occasion of them is not, perhaps, understood. The like deviations from the ordinary course is observed, not only in other animals, but also in the vegetable kingdom, fruits being often joined together, and otherwise strangely misshaped, which must arise from the common laws of nature being some-wise diverted from their usual course, by some accidental cause equally unknown to us. But however this may be occasioned, there is nothing that we know of in a fright or longing, that can produce such a change in organized matter, nor can operate in the manner that has been supposed, much less at such different periods; but there is, on the other hand, every thing against such an hypothesis; which has accordingly always given way in enlightened ages.

The instance so often adduced from the sacred historian, is by no means in point: for without adverting to the very peculiar natural circumstances in that transaction, which are wanting in ordinary instances, it is sufficient to observe, that there was therein an evident divine interposition. Should any one doubt of this, he has only to make a similar experiment, the result of which will, probably, have more weight than ten thou-

sand arguments. As matter of fact therefore, as before observed, does not at all countenance, but directly contradict the hypothesis, there is the strongest reason for married women arguing themselves out of such fears, instead of reasoning themselves into them, and suffering a painful conflict for weeks, and months together. It will give me great pleasure if any thing I have advanced on the subject, should answer so desirable an end ; whilst reason, philosophy, experience, and every thing on which we ought to depend, conspire to support such an attempt.

Amongst the various *Marks* resembling some of the objects around us, that called the *Hare-lip* is the most common ; a blemish too well known to require any description. It is sufficient to observe, that it is of two kinds ; the simple, wherein the upper lip only is divided, either wholly or in part, with some loss of substance ; and the complex, in which the fissure of the lip is double ; and sometimes the palate of the mouth, and even the *uvula* is divided. It would be beside my purpose, in this place, to treat of the manner in which this deformity and affection is to be remedied ; I shall confine myself to speaking only of the time in which it ought to be attempted.

Various considerations contribute to make the distressed parents solicitous to have this blemish

blemish removed soon after the infant is born, or at farthest before the month shall be expired. On this account I am convinced, the operation has sometimes been prematurely performed, contrary to the better judgment of the operator, and not a few children have thereby fallen a sacrifice ; whilist others have received much less benefit than they would have done, had the operation been postponed for a reasonable time. Where the blemish is very trifling, indeed, and the operation simple, it may be done with reasonable safety in the course of the month, or a little after ; and if the child be able to suck, which is not always the case, there are even some advantages in performing it sooner. For as the child will not be able to take the breast for two days at least after the operation, it will with difficulty be kept tolerably quiet by the spoon after it has been once put to the breast ; but as infants need but very little nourishment for the first days after birth, and generally sleep a good deal, if the operation be done twenty-four hours after the child is born, it will be in a condition to suck by the time it requires much nourishment, and the mother's breast is prepared to furnish it. But in the complex hare-lip the case is exceedingly different, and the longer the operation is postponed, the better it is likely to succeed, and

should at least be deferred till the child shall be four or five months old ; the good effects of which I have lately seen in a child born at the *Lying-in* hospital. By this time also, the infant will have got over the period in which it is most liable to some painful and dangerous complaints ; will be thoroughly weaned from its hankering after the breast, and have learned to feed contentedly with the spoon ; by which children with this kind of hare-lip are obliged to be supported, they being always unable to suck. At this period likewise, the parts will have acquired a degree of firmness necessary to retain the needles, as well as size that will admit of handling them to greater advantage ; for the want of which, though the operation may appear to have been favourably performed, the needles will sometimes break out, and the deformity be but little removed, or perhaps sometimes be increased.

I have once seen another blemish of the mouth in a child born at the hospital, which required a similar operation. In this infant, the mouth was much wider on one side than on the other, and appeared as if that side had been divided far into the cheek, which gave it a very awkward appearance ; but as it was capable of being remedied in the same manner as the hare-lip, I shall only observe, that when I withdrew the pins on the third day,

day, the parts adhered very firmly, and the child left the hospital at the usual time.

A different kind of blemish consists in some superfluous part. Such may sometimes adhere only by a small base, like a thread, and may be removed by only passing a tight ligature round them. But should any even adhere more firmly, and be only a small joint, such as a finger or a toe, it were better to have it cut off on the first days ; as the vessels will then bleed but little, and the gristle by which such joints are usually connected, are not yet become bony. But should the part be more completely formed, it may be necessary to delay the operation awhile longer, that by discovering which of the duplicates may take the lead, the more promising one may be preserved ; which is not always to be known with certainty, at the birth..

Beside these, there are blemishes of far greater importance, some of which demand an operation as the only chance for preserving the life of the infant. Such are imperforations of the *anus* and *urethra*, or the *vagina* in females.

The *Vagina* is sometimes imperforate on the *external*, at others, only in the more *internal* parts ; and is in different degrees. The latter more commonly relates only to the *hymen*, which requiring an operation to be performed about the age of puberty,

I shall do more than barely mention here, especially as it requires only a simple, or crucial incision. Where the imperforation is in the substance of the *vagina* itself, I have never found an operation to be of any use, though I have known it attempted, in the adult, with great address and resolution.

I have never met with the *external* parts totally imperforate, but have known the aperture so very small as to require a little operation, which is mighty easily done with the point of a lancet ; there being always a *raphè*, or line, directing the extent nature has seemed originally to intend, which being through, requires only to be kept apart for a few days, by a bit of fine lint.

The imperforate ANUS is a melancholy case, as it seldom allows of an effectual remedy, the gut often terminating in a *cul de sac* so high up as not to be reached ; it is not, however, always to be despaired of, though no fluctuation of the intestinal contents should be felt for two or three days after the infant is born.

I remember only one case of this kind in the *Lying-in* hospital, and in that I happened to succeed, contrary, indeed, to all expectation, and after the child had puked up a great quantity of meconium ; and not only the belly, but also the face was exceedingly tumid, and the eyes had not been opened for some time.

The manner of doing this operation must, in different cases, depend so much on the discretion of the operator, that I shall do no more than describe that which I made use of in the instance alluded to.

The operation was not determined upon till the third day. A longitudinal incision was made, of about half an inch, above and below the part where the *anus* ought to have been, which was marked by a little excrescence ; a small bistoury was then thrust up in the usual direction of the bowel, for more than an inch. No meconium following this puncture, I examined carefully with my finger, and feeling something like the fluctuation meconium would make, I introduced a trochar, and withdrawing my finger, I carried up the instrument in such a direction as to avoid injuring the bladder, or forcing it against the *os coccygis*, for near an inch farther, making allowance, however, for the yielding of the parts, which might be somewhat forced up by the trochar. The instrument having now passed forwards, without that resistance it had hitherto met with, gave me the sensation of having entered a cavity, when withdrawing the trochar, we had the satisfaction of finding the meconium run out at the canula. The child was now put into a warm-bath, up to the waist, and in a few minutes having voided a considerable quantity of meconium, it opened its eyes

eyes, looked cheerfully about it, and fell into a pleasant sleep before it was taken out of the bath.

A piece of bougie was occasionally introduced, and sometimes left in the part, for a few hours, for the first fortnight; after which the child recovered fast, and at the usual time was taken from the hospital in pretty good health, though it had been much reduced by a bad thrush, which unfortunately made its appearance soon after the operation; but it always voided its stools perfectly well.

The imperforate Penis is not quite so common a case; but is not unfrequently suspected, when the end of the passage is merely stopped up by a little mucus; and should therefore be examined in good time. In this case, washing the part with warm milk and water, or at most, a little assistance with a small probe, or any such blunt pointed instrument, will be sufficient to open the passage. But it is evident, if the *urethra* be wanting no operation at all can be performed: it is, however, more commonly found open a certain way, and often as far as the basis of the *glans*, and sometimes near to its extremity; in which last instance, it is necessary only to make a small aperture with a lancet, or a fine trochar, and to keep the part open by the occasional introduction of a bougie. The more com-

common complaint of this part however, is that of the urinary passage terminating by a small aperture at a little distance below the *glans*, and sometimes on one side of it. In these cases, the precise circumstances must determine the propriety of any operation, which if not carefully managed, may render the case worse than it was. I recollect two indeed, in which I was able to do considerable service, one of which was in the presence of the late Sir Cæsar Hawkins, and the other of the late Dr. Hunter; in the latter, the urine was discharged from one side of the *penis*, and pretty low down, which was very happily remedied.

There are other mal-formations of this part, by which it is drawn downwards, or to one side; the peculiar circumstances of which, must point out the nature of the operation most likely to afford relief. This will generally consist in a simple incision of the skin, where it may happen to be too tight or short, and keeping the divided edges at a distance from each other, till the little sore shall be healed.

I have likewise known the Ears to be imperforate, a case that allows of no remedy; but the external appearance may sometimes be assisted, when the *helix*, or outer circle, is turned forwards over the *tragus*, covering that part which ought to lead to the internal ear; but in these cases,

I have always found the *concha*, and *meatus auditorius*, totally obliterated.

Another, and a very common blemish, is that called Squinting, which is sometimes contracted by very young infants, and may then frequently be remedied, especially if confined to one eye ; but if a child be born with this deformity, it is not so likely to be removed. The means I have to recommend are, indeed, very simple, and consist only in applying a piece of sticking-plaster spread on some bright coloured silk, in such a position, either on the temple, or the nose, agreeably to the side on which the eye is distorted, as may draw it the contrary way. In order to keep up this attraction, the colour of the silk ought to be varied from time to time, as well as its situation, placing it a little higher, or lower, both for the sake of change, as well as to answer any other end, that a due observation on its effects may point out. Besides this, the child ought always to be placed with that side towards the light from which the eye is distorted ; and for the like reason, its parents, nurse, play-things, and every other object that can attract its notice, should as constantly as is possible be on the same side, that the child may have every inducement its age and circumstances will allow, to draw the eye the right way, and

by

by early habit, counteract a muscular action that is not yet become permanent.

Another method more proper for older children, is covering the eyes with ogles, which are glasses fixed in a little case, such as many people wear when they ride on horseback. They must be so placed, that the child can see no object but by turning the eyes to the sides from which they are distorted. It is scarcely necessary to add, that the glasses must be worn constantly, till the bad habit is overcome.

Infants are liable, indeed, to many other blemishes ; but as I mean to treat only of such as call for medical attention, and admit of some remedy, I shall mention only one or two more, which are very common, and with them close what I have to say on their Complaints.

VARI and VALGI.

THESE are distortions of the feet, and differ only with respect to the side to which the foot is turned ; in the former, the soles of the feet being turned inwards, and in the latter, outwards : the curative intention is therefore alike in both. The complaint is sometimes very trifling, and seems to have been owing only to some cramped position of the feet in the womb, and in

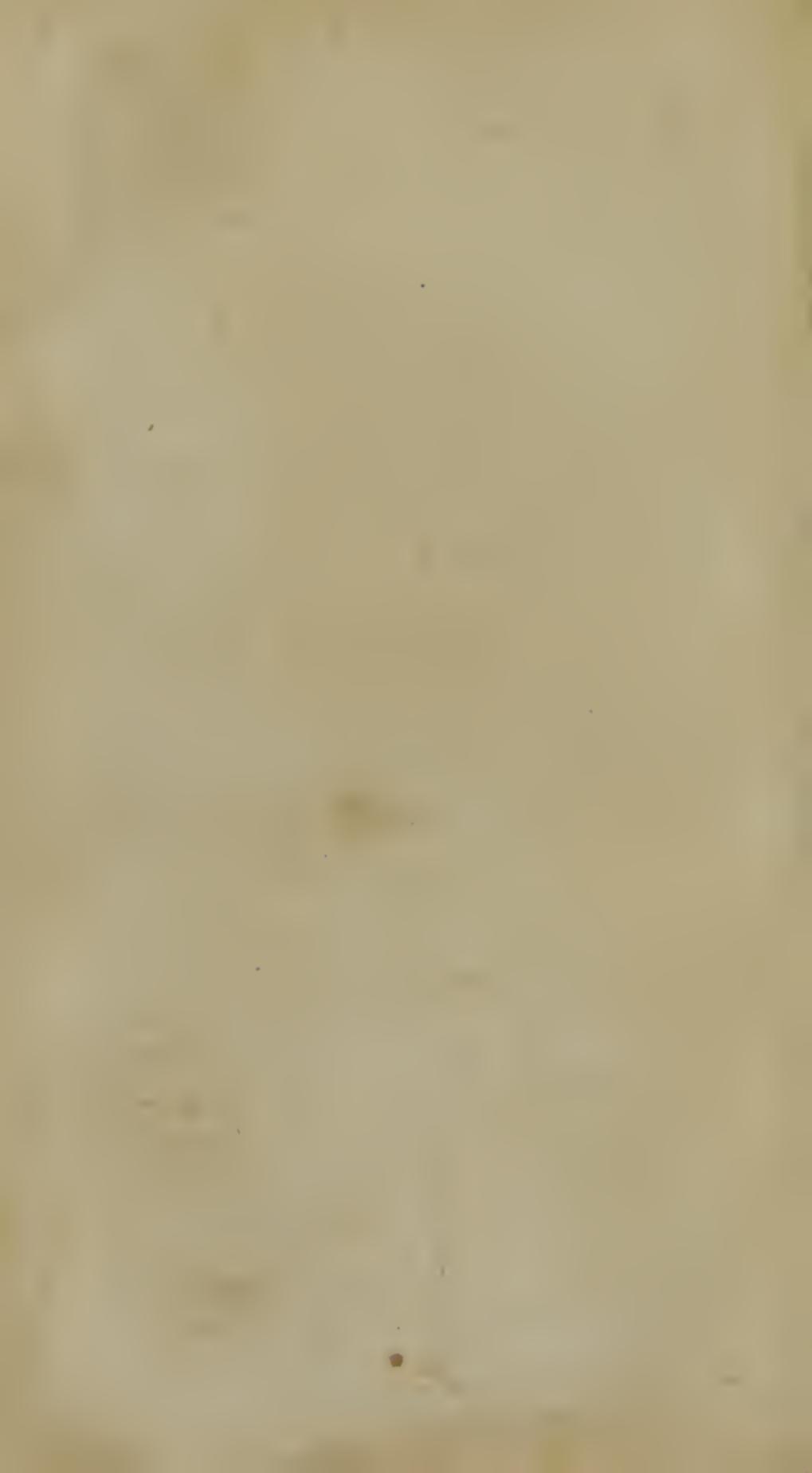
in that case, disappears before the end of the month. In other instances, there is evidently a contraction, if not accurtation of the tendons, which calls for considerable attention. The remedy, is obvious enough, and consists only in the proper application of a roller and paste-board splints, so as gradually to bring the foot towards its natural position, and in proportion as it inclines thereto, increasing the force and tightening the roller, every two or three days.

There is also another very common distortion, to which no particular name, I believe, has been given, in which the feet are turned upward towards the instep : but the mode of treatment is alike in them all, and the cure will usually be effected in a reasonable time.—The like easy means, therefore, will generally be sufficient to remedy a contraction of the joints of the fingers, and various awkward positions of the toes, with which some infants come into the world.

All these complaints may, nevertheless, be sometimes more considerable, and in such case, especially if neglected for many months, or even years, as they sometimes are, require the assistance of some steel instrument, or irons, (as they are called,) which are properly contrived for these and other distortions, as of the knees, &c. by Messrs. Addison, Sheldrake, and other trus-makers ; who seldom fail of bringing the parts into a

more natural form, even in the worst cases, whenever parents may think the complaint worthy of the time and attention that may be required.

THE END OF THE FIRST PART.



DISEASES *of* CHILDREN,

PART THE SECOND;

CONTAINING

FAMILIAR DIRECTIONS

ADAPTED TO THE

N U R S E R Y

AND THE

GENERAL MANAGEMENT *of* INFANTS
FROM THE BIRTH.

“ La Mere veut que son Enfans soit heureux,
“ qu'il le soit de dés apr  sent, en cela elle
“ a raison ; quand elle se trompe sur les
“ Moyens, il faut l'eclairer.”

Rousseau.

E e 2

GENERAL DIRECTIONS

FOR THE

PROPER MANAGEMENT OF INFANTS
FROM THE BIRTH.

WHATEVER splendor the actual treatment of diseases may reflect on the science of medicine, it by no means comprehends the whole of its province: for prevention being in every case preferable to remedies, the medical art would be more imperfect than other sciences, were it devoted only to the latter. In the management of infants more especially, such a variety of other articles occurs subject to medical direction, that this little work would be peculiarly incomplete if confined merely to the cure of disorders. In a view, therefore, to such miscellaneous matters, and certain recurring affections too trifling to be ranked as diseases, this second part is annexed; and it is hoped, may contain every thing on which the most vigilant parent can

can wish for information, without tiring her by enlarging upon trifles. In all matters of importance a becoming firmness has been adopted, but I have not equally insisted upon others, wherein the manners of a refined age cannot comply, nor have urged any peculiar modes which the generality may not adopt. Should any opinion be more obstinately maintained, it is, probably, in relation to the nourishment most adapted to new-born children; and this it may be proper to discuss, previously to entering upon their general management, by considering the case of infants intended to be reared without the breast, or brought up, as it is called, *by hand*.

But it would carry me altogether beyond the limits I have assigned to this second part, were I to enter so far into the investigation of the subject, as to set forth all the improprieties of that mode of training up infants from the birth. And I am glad to find by some very recent examples among persons of rank, that there is somewhat less occasion for it, than there appeared to be some years ago. It would be unpardonable, however, in a work of this sort, not to insist how inadequate every substitute for the breast has been universally found; and therefore how proper it is, that every child should have it, and even be suckled by its

own mother, where her health can safely admit of it.—Reason, instinct, experience, all conspire to support this opinion ; and whoever will determine to attend only to matter of fact, may soon be convinced of it. Nature herself points it out : all the nobler part of the irrational creation is qualified for it, and by instinct it obeys—the human race alone, possessed of nobler powers, and rational discernment, perverts those faculties to evade its dictates, and to invent excuses for refusing its claims. But puerile, indeed, are all the common arguments against it, in the greater number of instances ; and herein Dr. Armstrong seems to have egregiously erred, for though, apparently, an advocate for suckling, he has laboured for arguments to apologize for the spoon and the boat, in too many instances. It were easy, perhaps, to produce as sound arguments against eating more than once a day, because so many people become diseased from excess. But not only is the breast-milk the natural, * and most proper food

for

* In some very northern parts of the world, as those of Greenland, and the neighbouring country of the Esquimaux, the breast appears to be, in the strictest propriety of speech, the *only* food that nature has provided for infants ; insomuch that, whenever a suckling-mother happens to die, her infant is buried with her. Experience, one would hope, having demonstrated the ineffectacy of the hard and coarse

for infants, but suckling also conduces to the easy recovery of the mother ; though she should not be able wholly to support her child by the breast, or to continue suckling so long as the infant may require it.

Although from much experience I venture to give this opinion, I do, by no means intend to assert that every mother is able to suckle her child even for the month, or would do well to attempt it ; but I am, nevertheless, equally satisfied, that many are very well able who do not, and several who have only through fear been discouraged from doing it, in two or three lyings-in, having afterwards been prevailed on to make the attempt, have gone on with it for several months, enjoyed better health when they suckled than at any other part of their lives, and their children have thriven perfectly well.

Thus, besides the advantages derived to infants, there are evidently others resulting to the mother herself, and some that deserve a particular notice. For, by this means, where due care is taken, painful inflammations and suppurations in the breast may often be prevented, as may be fairly concluded,
not

coarse diet which nature has there so sparingly dealt out, it is esteemed an act of compassion to put an end to an infant's sufferings by plunging it into the sea.

not only from the rarity of such complaints in the *British Lying-in Hospital*, where almost every woman suckles her infant, but from the like authority of Dr. Nelson, who reports, that out of 4,400 women who suckled their children, only four had milk-sores, and that “these had either no nipples, or former sore breasts.” These advantages, if duly credited, one should hope, might tend to induce ladies of rank to set the example, by performing this kindest and most pleasant office, at least during the month. But it would be unjust not to add, that whenever they may purpose to assume it for a much longer time, they should determine to do it effectually, or they will but injure their children, as well as forfeit many of the advantages and comforts, which in a due execution of it, they would have a right to expect. It is possible, I may not be thanked for urging some parts of the above advice; but I am certain, I am doing my duty in giving it.

Hitherto, however, notwithstanding the many encouragements often brought to the ears, and urged upon parents, that tyrant, Fashion, has prevailed over the good sense and natural feelings of many, whose maternal affection can be, in no other instance, suspected. Against some, moreover, another complaint may be brought, who not only refuse to give nourishment to their tender

tender and helpless offspring, but whilst they, unnecessarily, commit this charge to a stranger, give up every other charge with it ; and seldom visit the nursery, or superintend those they set over it. It is from hence, that so many errors in the point of diet, air, clothing, &c. &c. have insensibly crept into the houses even of some, whose rank in the world would otherwise have secured to their children every advantage that a due attention to nature, or to art could point out.

Another important, and affecting consideration might be brought forward on this head, which I shall, indeed, only touch upon, as it calls rather for the pen of the philosopher than of a physician, I mean, the sacrifice that poor women make in going out to suckle other people's children, the sad consequences of which are often severely felt by their own, through neglect or mismanagement, and especially for want of the breast. Indeed no attention of the nurse can duly compensate this loss ; and only the most common substitutes for it can, in their forlorn circumstances, be allowed them. This becomes a source of evil, that, I fear, is not usually thought of, and proves eventually the sacrifice of many infants every year : a matter of much importance, indeed, to the public, as well as to the families immediately concerned. It is true, indeed, ladies of rank frequently do all in their

their power to counteract this too natural, and fatal consequence, by a careful attention to the forsaken infant ; not only insisting upon a breast being provided for it, but regarding it as a kind of foster-child : so that, after generously preserving it through infancy by their charity and attention, they frequently follow it with their protection and kindness through life. Such charity, indeed, adds a lustre to elevated rank ; tho' perhaps, much less than this, from some people, would be short of their duty. But it is not every family that is in a situation to adopt this conduct ; though I am sorry to add, that too many who are not, nevertheless, greedily adopt the fashions, and mimick the manners of the great, by more criminally and needlessly refusing to suckle, and abandoning that tender charge with which nature herself has entrusted them.

It gives me real concern to find occasion for such unpleasant reflections upon any part of the sex I so much honour, and upon any of my fair and sensible country women, in particular. Nevertheless, I cannot help suspecting, that wherever such neglect does exist, whether in regard to sucking, or superintending the management of their children,* and does not

* This seems to be the case at present in both regards, amongst the lower class of people in France : and that nation is therefore much indebted to the goodness

not arise from want of health, or from some equally warrantable objection, it can be charged only on the depravity of the age, which insensibly perverts the taste, and corrupts the judgment of many who wish to do well. And depravity of manners, when once become general, has ever been considered as the leading symptom of a falling empire, and ought to be pointed out as far as it extends, by every friend to the community, at whatever hazard of giving offence, in every conspicuous instance of it. Tacitus, the Roman historian, complains of the degeneracy of Rome in his days, (though by no means its most degenerate æra,) lamenting that in former times, grave matrons attended to their children, as their first family concern, but now, says he, they are intrusted to the care of some Grecian girl, or other inferior domestic.—It is no small satisfaction to me, however, to declare, that in this country there is no ground for a general complaint on this head ; there are examples of the first magnitude of a nobler conduct, and one at the head of all, which were it copied

goodness of the Monarch, who is now actually making solicitous inquiries through Europe to discover the best substitute for the breast. Should the method hereafter recommended be, amongst others, adopted, its claim will soon be determined ; and I venture to hope, to the advantage of the rising generation in that kingdom, and elsewhere.

336 *Great Attention to Infants is necessary*
pied, without exception, in domestic life, would prove the glory of the present day, and a blessing to the rising generation.— May the time hasten when it shall be universally followed by her inferiors, whilst I attempt to point out as far as my observation has extended, the most prudent means of executing this important branch of the female duty.

It may not be amiss, at the opening of the ensuing observations to remark, that the demand for the multifarious directions here offered, as well as all those given by other writers on the management of children, arises from the false reasoning of those to whose care the infant state is frequently intrusted ; who instead of being guided by the sober dictates of nature, have adopted the rules of art, falsely so called, or have followed the wild fancies of anile superstition.

On the other hand, the various tribes of the irrational species act in a thousand instances more prudently than we do, and being uniformly guided by instinct, are led implicitly and safely through all their operations. Many quadrupeds, fish, and even reptiles seem to know what is proper for them as soon as they come into existence, and have strength sufficient to reach after it. In other instances they are guided by the parent, who seems to adjoin some degree of

knowledge acquired by experience, to the instinct with which it is naturally endowed. Man, on the contrary, designed to be the pupil of observation, has scarce any innate discernment; and consequently his infant race pass through a long period utterly helpless, alike divested of ideas to guide, and of strength to manage for themselves. But to the parent is imparted both; whose province it is to judge for them, and actually to put into their hands or mouths, whatsoever they may stand in need of. When the parent, therefore, forsakes the paths of simplicity, and lays down arbitrary rules, the result of false science, instead of patient experience, or mistakes the clamor of fashion for the voice of nature, confusion and disease must be the unavoidable consequence.—Awakened by these, man is loudly called upon to return to the simplicity of nature, and the result of dispassionate observation. It is this will be our aim in the work before us, wherever danger and deviation are connected; assured, that the experience of the most judicious and successful among parents and practitioners, will applaud the design, and confirm the generality of our observations.

To this end, let us imagine an infant just born,* who, doubtless, at this moment,

F f

calls

* No convenient place offering in the former parts of this work, for a few hints relative to infants

338 *The Means of recovering Infants*
calls for our best attention. And first, it
may be observed, that it ought not to be
exposed to any thing that may violently, or
too suddenly affect the sences. On which
account,

fan:ts apparently *still-born*, I wish here to suggest
the result of an experience that has been attended
with more success than might have been expected.

I have, indeed, both at the hospital and else-
where, met with many instances of children born
with very little, and others without even the small-
est appearance of life, some of whom have remain-
ed entirely destitute of any sign of it, for more than
a quarter of an hour, and yet have been happily
restored. I pretend to little or no skill in this busi-
ness not generally practised, and can scarcely guess
to what to attribute this success, unless it may be
an unwearied assiduity and perseverance in my at-
tempts, wherever there are no certain signs of
death, till I conceive nothing is possibly to be ex-
pected from them. And this has so often succeeded,
that I have been tempted to think its importance
may possibly, not have been sufficiently attended to
by every practitioner. I rest this presumption, not
only upon some fortunate events where I have had
little or no previous ground for hope, but where
others had, in some instances, abandoned it. A
certain steady perseverance in our attempts to pre-
serve life, is, indeed, not only a duty practitioners
owe to the public, so long as the least hope may re-
main, but one successful attempt is an abundant re-
compence for many failures; especially, as I ima-
gine we shall rarely fail when there may be the
least positive ground for hope of a favourable issue.

As to the means they consist only of warmth,
clysters, stimulants, and especially blowing forcibly
into the *trachea*, or wind-pipe.

The

account, Moschion and Albinus have well advised, that it should not be exposed either to great heat or cold, nor a strong light, nor odours of any kind, however grateful to adults; the unpleasant effect of which

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are

The ordinary stimulants are the smoke of lighted brown paper, or tobacco; juice of onions; Scotch snuff; frictions with hot cloths, and brandy; striking the *nates*, and the soles of the feet: stimulating the nose, and upper parts of the throat with a feather; with every other similar mean calculated to excite a strong effort, especially that of crying; to which our attempts must principally, and ultimately tend. On this account, I believe, no great benefit is to be expected from stroking the blood along the chord, or immersing the after birth in warm water; the fetal life being extinct, the recovery of the child will depend on the blood passing freely through the lungs, which it cannot do till the child is brought to breathe freely and forcibly; the continuance of which also is never secure, till it begins to cry. To these ends, I have depended above all upon blowing into the mouth, which I am satisfied may be more effectually done by the mouth of the attendant being placed immediately upon the child's, than by means of a blow-pipe; at the same time, preventing a premature return of the air, by the fingers of one hand placed at the corners of the mouth, and those of the other on each side of the nose. But I have sometimes imagined, that I might attribute much of my success not only to the *continuance* of this, but to the *manner* of doing it, by attempting to imitate natural respiration, by forcing out the air I had thrown in, by a strong pressure against the diaphragm and breast: thus blowing in, and alternately pressing out the air, for a long time together, emitting

are sufficiently manifested by the infant itself.

The attention will next be called to washing and dressing it, together with other little

omitting it only now and then, to make use of some of the abovementioned means : which latter, however, can do very little till the child begins not only to gasp, and that with shorter intervals, but also to breathe in a pretty uniform manner. At this time, should the child not be disposed to *cry*, which is frequently the case, the *nates* and soles of the feet should be stricken forcibly and repeatedly ; and this failing, as well as the application of ordinary stimulants to the nose, and irritating the wind-pipe, I think nothing is so likely to succeed as a tobacco, or other stimulating clyster, and putting a little Scotch snuff up to the nose, which latter if it induce sneezing, will soon be followed by a strong cry, and the child be with certainty restored.

Amongst other means, that of warmth was recommended ; to which end, the infant should be entirely covered with hot clothes, which should be renewed as fast as they become cool ; or the body may be immersed in a tepid bath, and be well rubbed all over : the chord may likewise be suffered to bleed a little, especially if the face or body do not soon acquire the natural colour—but this ought seldom to be done, nor the chord be divided as long as any pulsation is to be felt in it.

To these means may be added the cautious use of electricity, which appears, *a priori*, as likely to be successful in these, as in any other cases to which it has been applied : but I have never been in a situation to make trial of it, or I certainly should, as I once knew a child happily recovered by it, after being laid out for dead, for near two hours, in consequence of a fall from a two-pair of stairs window.

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tle offices suited to the occasion. And this first washing is of more importance than is usually imagined, being amongst the *little* things which are often overlooked by writers and others, (and by some thought of no

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But should these several means fail, as a last resource, a very different kind of stimulant may be tried, and instead of laying the infant aside in a warm flannel, it should be exposed to sudden and severe cold, which I remember once to have succeeded after the life of the child had been despaired of.

It will be presumed, I dare say, that such a scrupulous attention is not designed to be inculcated in every instance of apparently still-born, infants, but principally where the death of the child may not only not be certainly ascertained, but there has previously been reason to expect it would be brought alive into the world.—The great importance, however, of the subject, it is hoped, will be a sufficient apology for the length of this note; and as the attempt to restore infants to life has always been a most pleasing employment, to myself, the desire of being an occasion of inducing others to a *perseverance* in the use of the like means, emboldens me to risk the censure of any who may deem it prolix or superfluous.—I shall just add, that amongst other symptoms of some irrecoverable injury a child may have sustained in the birth, is that of a discoloured and often fetid, or bloody water forcing out of the nose, after the lungs have been two or three times artificially inflated. Under these circumstances, I have very rarely seen an infant at all revived; but I have twice lately so far succeeded as to animate a child sufficiently both to breath and to cry; but they afterwards lay in a moaning state for four or six hours, and then expired.

consequence);* but it is not every little thing that may safely be neglected, or ill-done. In regard to poor people, especially, and infants born in hospitals, and other crowded apartments, the importance of proper washing is greatly increased, the foulness left upon the skin being a remote cause of some dangerous endemic complaints;† as a preventative whereof, the washing ought to be repeated for several days, with light frictions of the skin. Some infants also are covered much more than others with a thick, viscid matter, which cleaves so fast to the skin, that it is not easily washed off, which there is, however, another reason for doing, as it would obstruct perspiration, which can never be duly performed, where the skin is left any wise foul. On this account, the nurse should be very attentive to this first concern of her infant charge, and whatever wash she may make use of, it should always have soap in it, and the child be well rubbed, especially under the arms, in the hams, and groins, where this mucus is apt to adhere: and to this end, it would be better she made use of no kind of grease, which tends to stop up the pores, and so prevent perspiration; or that she be, at least, very careful

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* Dr. Hamilton.

† See Mons. Baumes, on the Jaundice and Melancholic-fever.

the grease be afterwards well wiped off. In the same view, it were well if the washing were repeated for two or three days, which it is not improbable might tend to prevent the red-gum and other similar affections of the skin, with such other complaints as may arise from the suppression of insensible perspiration.

After a while, and sometimes the next day, most nurses wash the child with cold water; a practice highly extolled by Dr. Armstrong, as well as many other practitioners. But though no one can be a greater advocate for every thing that is bracing than I am, I cannot approve of this substitute for cold-bathing, as it is called; at least, as an indiscriminate practice. The cold-bath acts on a quite different principle, and I could wish almost every child, especially those born in London, were bathed at three or four months old, (if the season of the year and other circumstances should admit of it)* which I am certain would prevent

* To this end, particularly, a child should not be costive, feverish, nor have any internal obstructions.—*Mons. Le Febvre de Villebrune* in his translation of this work into French, has added a chapter upon Baths; in which he strongly controverts the idea of the probable good effects of cold bathing, and even makes use of a long chain of arguments against it, deduced, indeed, from an ingenious theory, and supported by quotations from the ancients;

344 but may frequently be injurious.

vent, as well as remove many of their complaints.* But to see a little infant of a few days old, the offspring perhaps of a delicate mother who has not even strength to suckle it,

who practised, however, in a different climate.--- The shortest, and, perhaps, the best reply to this specious reasoning, might be given in the mode of Diogenes to Zeno, whose arguments against the possibility of Motion, Diogenes laconically refuted, by hastily getting up, and walking across the school. We have, in like manner, only to point to the numbers of children and young men, who from very weakly infants, have been rendered strong and healthy, merely from a prudent use of the cold-bath; and may defy any man to produce the like instances of its opposite effects when made use of with the cautions which every powerful remedy requires. The Spartan women, likewise, afford us sufficient evidence of the salutary effects of cold-bathing, notwithstanding the comments made upon the women themselves, by Aristotle.

* From the surprising good effects that sometimes follow the use of cold-baths, I do not wonder that Priests, in times of ignorance, have been known to account them holy, and dedicate them to some Saint; to whose influence certain cures were attributed.

The salutary operations of the cold-bath are, however, easily accounted for, from its promoting insensible perspiration, and rendering that secretion less readily affected by the impression of the external air.

It may be known to agree with children, when they come out of it warm, lively, and their strength increases on the use of it. On the other hand, if they come out cold, dispirited, and seem rather to lose strength, it may be as often prejudicial.

it, washed up the loins and breast in cold water, exposed for several minutes, perhaps in the midst of winter, (when children are more

But I must observe, that these unpleasant effects are frequently owing to an improper use of bathing, and for want of making a very obvious discrimination in the habits of body of different children.—For the tender and delicate, not only should a good quantity of salt be put into the bath, but the water should also at first be a little warmed, and children be brought only by degrees to endure it quite cold, which they will not by this means be the less likely to do: or should the water never be perfectly so, the advantages of cold-bathing will, nevertheless, be considerable;* though Dr. Hunter and others have thought differently. It is not, I apprehend, merely from its coldness that the benefit of bathing arises, but is rather from the subject being suddenly immersed into a very different medium, (if so be, that medium be not actually warm) in which the contact of the external air is taken off during the immersion, and is as suddenly restored on his being taken out. By this means, the blood is alternately pushed forward into the extreme vessels, and suddenly repelled to the heart (in proportion to the coldness of the water) and suffers an advantageous attrition against the sides of the vessels. The small passages are rendered previous, and the contractile power of the heart is increased, as well as the muscular fibres proportionally strengthened. The salt added to the water pretty certainly prevents taking cold, whilst it adds to the stimulus on the skin, and has a more salutary operation on the pores.

For

* Hippocrates speaking of bathing, cautions against the two extremes of heat and cold.

more inclined to disease than those born in summer), itself in one continued scream, and the fond mother covering her ears under the bed-clothes that she may not be distressed by its cries ; has ever struck me as a piece of unnecessary severity, and favors as little of kindness, as plunging an infant a second or third time, into a tub of water, with its mouth open, and gasping for breath, in the old fashioned mode of cold-bathing : both of which often induce cramps and pains in the bowels, and weakness of the lower extremities, but rarely an increase of strength. It surely cannot be amiss, in winter time at least, to take the cold off the water for the few first days, which it has been observed, will be useful in other respects ; and whenever cold water is made use of, it will be quite sufficient to wash the child as far as a regard to cleanliness may require,

For the sake of some readers it is necessary to observe, that a child is to be put only once under the water at each time of bathing, and to be taken out as soon as it is possible. It should be received in a blanket, and be wiped dry with a cloth in the most expeditious manner ; and as soon as it can be dressed, should partake of such exercise as may be best suited to its age : but by no means put into bed. There will need no great attention to its being wiped perfectly dry, as a child will be less liable to take cold from a few drops of salt-water being left upon it, than by being long uncovered in some parts of its body, in an over-caution to wiping it dry.

require, which will always be the parts exposed to the worst kinds of galling and excoriation: on which account cold water is certainly useful. With this view, beside the groins, and contiguous parts, the arm-pits, folds of the neck, and parts behind the ears, being also disposed to slight chafings, may be occasionally washed in like manner, and if the discharge be not checked by it, they should be dusted with a little hair-powder, or powder of ceruse, or a little white vitriol may be added to the water; which if the excoriations are not very considerable, will generally heal them very soon: should these fail, they may be dressed with the red drying ointment.* In a very acid state of the stomach however, during the month, particularly where there is a purging with very green stools, the parts covered by the cloths are often infested with a troublesome excoriation, (called *intertrigo*) and whilst that state continues, will not be healed by any drying applications. I have found nothing so pleasant, and useful in this case, as covering the parts with a thin skin found upon the veal kidney, which softens, and cools them, till the cause of the complaint may be removed by the use of proper

* This is an excellent remedy in a thousand instances, and has very undeservedly fallen into disuse.

per absorbents. There is a mixed affection of this kind, however, in which these parts are not actually excoriated, but are very hard and swollen, as well as painful and inflamed; and the affection seems to be kept up by the acrid nature of the excretions, though not originally caused by it. In this case, instead of washing the parts with wetted fuller's earth, gruel, or greasy mixtures, an embrocation of elder-flower-water, with as much boiling milk as will render it moderately warm, has been immediately efficacious. But one grand mean of keeping children from chafing is to preserve them very dry and clean;* articles of so much importance, that I should have insisted

* To this end, poor people need to be admonished, that all the cloths should be properly boiled every time they are washed; a circumstance such people are apt to neglect.—Another error worthy of remark in this place, is, that of wearing a pilch (as it is called); an old fashion still too much in use, and contributes not a little to make children weak: it being originally designed to be worn only for the few first weeks after birth, but is often continued for as many months. It can answer no possible end but that of saving a little trouble, since instead of keeping children dry and clean, it does directly the contrary; for if it has received any wet through the usual cloth laid under it, it ought itself to be changed as often as the other, or must certainly be damp and uncleanly; whilst by heating the loins, and lower limbs, it has a manifest tendency to relax, and dispose infants to become rickety.

much longer upon them, if I had not already far exceeded the bounds I had intended. Suffice it therefore to say, that it is next to impossible a child should thrive or be healthy, if these last articles are not strictly attended to, which, together with those of proper food and exercise, are, perhaps, the principal ones in which the children of poor people are at a great disadvantage, and which become the constant source of rickets and distortions among them. Let not these ill effects fall on the children of those whom misconduct alone can expose to them.

I shall just mention here another useless operation practised by nurses, that of forcing out the milk from the little breasts of new-born infants. Some children a-day or two after they are born, will have the breasts exceedingly tumid, hard, and painful, containing something like milk ; and nurses imagine it to be a great kindness to milk it out as it is called. But I have often been grieved, to see a nurse rudely rubbing, and even squeezing the breasts, already in a state of inflammation, and continuing it even for some minutes, though the child's cries might convince her she is putting it to pain. In the case of inflammation, a bit of bread and milk poultice is the properest application, but if the part be not inflamed, it can want nothing at all ; though if it be thought

something ought to be done, a little oil with a drop or two of brandy may be gently rubbed in, or small pieces of the litharge-plaister may be applied, and lie on the parts till they fall off of themselves.

Having considered these necessary preparations, I proceed to offer a few remarks on the prevailing errors in their *dress*.

Upon the first sight of a new-born infant, every one is struck with the idea of its weakness and helplessness; and we often take very improper methods of strengthening it. It is *designed* to be weak and tender in this infant-state, as is every other object around us.*—Take a survey of nature, from the first opening leaves of the vernal flower, or the tender foliage of the sensitive plant, to the young lion, or the elephant; they are all in their several orders, proportionally weak, and cannot exist without some exterior support. But they stand in need of nothing but what nature has prepared for them. If seed be cast into a proper soil, it wants only the surrounding elements to ensure vigour and maturity. So if the tender

* Nous naissions faibles, nous avons besoin de forces; nous naissions dépourvus de tout, nous avons besoin d'assistance, nous naissions stupides, nous avons besoin de jugement; tout ce que nous n'avons pas à notre naissance, et dont nous avons besoin étant grands, nous est donné par l'éducation.

lder infant be born of healthy parents, and at its full time, it is usually sufficiently strong ; proper food and nursing are the elements whose fostering influence it requires :—if it have these, it will need nothing more.

It is true, it is very weak, but is it therefore to be tight rolled, under the idea of supporting it, and giving it strength ? It is a bundle of tender vessels, through which a fluid is to pass, undisturbed, to be equally distributed through the body, and which are therefore surrounded by a soft medium, capable of yielding to the impetus of their contents. Hence we cannot but conceive, how injurious any great pressure must be to so delicate a frame, which before birth swam in a soft fluid. But besides this, the infant requires freedom and liberty on other accounts. The state of infancy and childhood (as Dr. Gregory observes) is impatient of restraint in this respect, through “the restless activity incident to youth, which makes it delight to be in perpetual motion, and to see every thing in motion around it.”

Let us again advert to the irrational species, whose more sagacious conduct so often disgraces our own. There is no occasion on which they do not seem to consult propriety ; and having a right end in view, they as certainly accomplish it, and always

in proper time—Doth a little bird design to prepare a lodging for her young ; it is sure to make choice of the fittest situation, whether to defend them from dangers, or obtain the most convenient supply of their wants ; if to this end it be necessary to construct the nest of rough and strong clay, it is still lined with down : the young lie warm and secure, but they lie at their ease.

I am not ignorant, indeed, that for many years past, the very ancient tight mode of dressing infants has been discontinued, for which we are probably greatly indebted to Dr. Cadogan. It is certain also, that for the last twenty years, the fashion recommended by him has been improving ; but there is yet room to go forward, and were every tender parent in this country thoroughly sensible of its advantages, it would soon become fashionable to see children as much at their ease on a christening-day, as they are when laid at night in their beds. And I may be permitted to add here, what every modern practitioner has adverted to, that were strings, in almost every instance, substituted for pins, physicians would seldom be at a loss to account for the sudden cries and complaints of infants, which are too often

ten produced by this needless part of their drefs.*

Nature knows no other use of clothing but to defend from the cold,—all that is necessary therefore for this purpose, is to wrap the child up in a soft loose covering, and not too great a weight of it ; to which ornaments enough may be added without doing mischief. And had this matter been always wholly left to the judgment of parents, this is, probably all that would have been done, but the business of dressing an infant is become a secret, which none but adepts must pretend to understand. The child itself, however, discovers to us the propriety of such clothing, by the happiness and delight it expresses every time it is undressed, and rubbed with a soft hand. Whereas *the art of dressing* has laid the foundation of many a bad shape, and what is worse, of very bad health, through the greatest part of life.—It is scarce necessary in this day, to add any thing in this place in commendation of cleanliness, unless it be to counteract a vulgar

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notion

* A gentlewoman lately informed me, that one of her children, after long and incessant crying, fell into strong convulsions, which her physician was at a loss to account for, nor was the cause discovered till after death ; when on the cap being taken off (which had not been changed on account of its illness) a small pin was discovered sticking up to the head, in the large *fontanelle*, or mould.

notion, familiar only to common people, that a frequent change of linen has a tendency to weaken new-born children ; an absurd idea, that has not the smallest foundation in reason or fact.

The tender infant being dressed, and having undergone such other little discipline as has been mentioned, is usually so far fatigued by it, as soon afterwards to fall into a sound sleep. We shall therefore leave it a while to be refreshed, whilst I endeavor to conduct the fond mother through the various other duties it calls for from day to day, till it happily arrives at an age free from the peculiar dangers of infancy.

In the pursuit of such a plan, we meet with a variety of miscellaneous articles, and though many of them are not of apparent magnitude in themselves, are in their consequences highly worthy of notice ; which that they may be thrown into some kind of order, may all be very well classed under the several heads of the *Non-naturals*, as they are called. Such are air, meat, and drink ; sleep and watching ; motion and rest ; retention and secretion, and the passions of the mind ; a due attention to which, may prevent many of the evils incident to this tender age.—The first of these was said to be Air.

The great importance of this has been set forth when speaking of the diseases of infants ;

fants ; I shall here in a more particular way observe, that the age, constitution, and other circumstances of the child, and the season of the year, ought always to be taken into consideration, *that* being highly proper on one occasion, which would be very detrimental at another. In general it may be said, that warmth is friendly to very young infants, but they should, nevertheless, be inured gradually to endure the cold air, which is absolutely essential to their health. I cannot therefore agree with Dr. Armstrong, who thinks the rich lose fewer children than the poor, because they are kept warmer. On the other hand, it was well said by one, that “a warm nursery fills a cold church-yard.” Much caution, indeed, is necessary on this head, in this unsettled climate, and evinces the necessity of parents superintending those to whose care they intrust infant-children, since nurses are often indiscreet in keeping them too long in the air at a time, which is a frequent occasion of their taking cold, and deters many parents from sending them abroad so often as they should. Another, and a worse, as well as common fault, of nurses and servants, is, that of standing still with children in their arms in a current of air, or even sitting down with other servants, and suffering children who can run about, to play at a little distance by themselves, sit down on the grass

gras, and such like ; the consequences of which are often a long confinement to a warm room, and either a prohibition against going out so much as they ought, or a fresh cold owing to some of the like irregularities. And I may here observe, the lightest symptom of cold (which is also often taken in the lying-in room during the month,) is that called the *snuffles*, or stoppage of the nose, and in general requires nothing more than a little pomatum, or *pomade divine*, to be put to the nostrils when the child is laid in the cradle ; or if this fail, a little white vitriol may be dissolved in rose-water, and the bridge of the nose often wetted with it.

It will be adviseable, in order to inure infants to the air, that they be short-coated as early as the season of the year will permit ; their dress should be still loose and easy, and they may continue without stockings even for two or three years, and boys till they are breeched. As to this change, I think, it had always better be made in the beginning of the winter, than in summer, as the dress upon the whole is warmer, especially about the chest, which from having been open for three or four years, it seems rather strange to cover, all at once, at the beginning of hot weather.

But though I have said children would be as well without stockings, for a considerable time, I must remark, that circumstances

are always to be taken into consideration. *Mutatis mutandis** should not only be the motto of physicians, but of common life, and we should be guided by it in regard to all general rules. For want of this caution in the present instance, tender children suffer exceedingly in severe winters, and are distressed with chilblains merely for want of proper covering to their tender limbs. I have seen a child of four or five years old, the daughter of people of fashion, (who I know will pardon my mentioning it) whose legs were covered with chilblains quite up to the knee, and yet the lady could not be prevailed upon in time, to suffer stockings to be put on, because strong and healthy children are thought to be better without them.

The second article under the head of *Non-naturals* refer to meat and drink, and is worthy of ample discussion, having as yet been considered only in relation to the expediency of *breast-milk*, where that may anywise be procured.

In the first place it may be remarked, that although an infant be suckled by its own mother, it can certainly have no real need of any other food, till the time nature will bring milk into her breast, supposing the child be laid to it in proper time ; which, doubt-

* Conduct should be directed by Circumstances.

doubtless, ought to be as soon as she may, by sleep or otherwise, be sufficiently refreshed to undergo the little fatigue that an attempt to suckle may occasion. This method, however unusual with some, is the most agreeable to nature, and to observations on the irrational species, who in many things are the very best guides we can follow.* By means of putting the child early to the breast, especially the first time of sucking, the nipple will be formed, and the milk be gradually brought on. Hence much pain, and its consequences will be prevented, as well as the frequency of sore nipples, which in the first lying-in, have been wont to occasion no inconsiderable trouble. But should this, or even an abscess take place, they are far less distressing under proper management than has been usually imagined †. However, should the mother be unable to suckle, and a wet-nurse be engaged, there can be no harm in putting the child to the breast, after it has taken a dose or two of the opening medicine ; or should

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* This subject is largely and elegantly treated by Dr. Gregory, in his *Comparative View*, before quoted.

† See a Treatise upon ulcers beforementioned ; in which the *milk-abscess*, and *sore nipples* are fully considered, and a successful, and easy method of treatment pointed out.

it be brought up by the hand, and not easily kept quiet, a spoonful or two of water-gruel, with a little Lisbon sugar, may be given for this purpose, which will usually set it asleep ; after which it will be ready for whatever culinary food shall be found proper for it.

And on this article, a vast croud of absurdities open upon us at once ; and many of them with the sanction of custom and authority. I shall first advert to thickness of the food : and it has, indeed, been matter of wonder, how the custom of stuffing new-born infants with bread could become so universal, or the idea first enter the mind of a parent, that such heavy food could be fit for its nourishment. It were well if the fond mother, and all well inclined nurses had more just ideas of the manner in which we are nourished ; and especially, that it is not from the great quantity, nor from the quality of the food, simply considered. They may surely be led to conceive, that our nourishment arises from the use the stomach makes of the food the body receives, which is to pass through such a change, called digestion, as renders it balsamic, and fit to renew the mass of blood, which is daily wasting and consumed. An improper kind, or too great a quantity taken at a time, or too hastily, before the stomach has duly disposed of its former contents, prevents this work

work of digestion, and by making bad juices, weakens instead of strengthens the habit; and in the end produces Worms, Convulsions, Rickets, King's-evil, slow Fevers, and *Marasmus*, or general Consumption.

Nature, it should be considered, has provided only milk, for every animal adapted to draw it from the breast, and that of women is certainly the thinnest of them all; but at the same time, far more nutritive than bread. It is true, bread, as it requires more digestion, will lie longer on the stomach both of infants and adults, and hence, probably, because it satisfies the present cravings, it has been conceived to afford a greater proportion of nourishment; though mixed up only with water, as it too frequently is, it is far less nutritive than milk. Children ought to be frequently hungry, and as often supplied with light food, of which milk is really the most nutritive that we are acquainted with. This could never be doubted of, but from its passing so quickly out of the stomach; on which account, indeed, though not the properest food for adults, employed at hard labour, and many hours from home, it is the fittest of all for the more sedentary life of a tender infant, who cannot get that nourishment from bread or other solid food, of which the stomachs

of adults are capable. It must have been for want of attending to this consideration, that Dr. Armstrong has said so much in favour of bread and other thick victuals; which, by the bye, he began to make use of for his own children (from its success in whom he has ventured to recommend it,) only at the age of six or seven months; a matter very different from stuffing an infant with it almost as soon as it is born. For everything the stomach cannot digest, it has been said, may be justly considered as a poison, which if not puked up, or very soon voided by stool, may occasion sickness, gripes, what are called inward fits, and all the train of bowel complaints, which may terminate in one or other of the evils just mentioned.

Milk itself is produced from food taken in by the mother, and is the richest part of it. It is in her stomach that the aliment is dissolved, or digested, which by a combination of powers in the *chylopoetic viscera*, or parts preparing the chyle, is so far animalized as to be converted into a kind of white blood; from whence it has been observed, every animal body is daily recruited. Hence it is very apparent, that previous to an infant having acquired strength enough to convert solid food into this wholesome chyle, or white blood, the parent, by this wise substitution in nature, has previously ac-

complished this work for the infant she is to nourish.*

It can scarcely be improper before I quit the article of suckling, to relate a recent instance, and a remarkable one out of many, as a proof of the great degree to which infants may pine for the breast, even to the great hazard of perishing for the want of it, where the real cause of the disease is not suspected.

This infant was very healthy when it was three months old, and was then weaned on account of the illness of the wet nurse; but soon afterwards ceased to thrive, and had continual bowel complaints. At the age of nine months I was desired to visit it, and was informed that it slept very little, was almost incessantly crying, and had for many days brought up almost all its food; was become very rickety, and had all the appearance of an infant almost starved. It had made trial of almost every kind of food, except the breast, and had been many weeks under

* Whether the parent be able to suckle her own child, or that office be performed by a wet-nurse, is not here particularly considered. The design is only to prove that milk is in general the most proper food for an infant. Whether that be prepared by its own mother, a nurse, or even by animals, as the cow, or the ass, is equally to the purpose; where the former cannot be had, the best, and most natural substitute, should be provided.

under the care of an experienced apothecary ; was constantly in a state of purging, and seemed to have been just kept alive by art.

On the first sight of the child, and upon the very face of this account, it was very evident, that the infant was not nourished by the food it received, and that the complaint lay wholly in the first passages. But reduced as it was, I had little expectation from medicines, and therefore gave as my opinion that either the child still pined for the breast, in which case, I doubted not, it would take it, though it had now been weaned six months ; or that it ought to be carried immediately into the country, and be supported for some time only upon asses milk, or perhaps be fed, now and then, with a little good broth.

My advice being taken, a good breast was procured, which the infant seized the moment it was put to it, and after sucking sufficiently, soon fell asleep for several hours ; waked without screaming, and took the breast again. It is sufficient to add, that the child ceased to puke or be purged, and recovered from that hour ; and after sucking eight or nine months longer, became in the end a fine healthy child.

To return : I am free then to lay it down as an axiom, that milk ought to be the chief part of the diet of Infants for a certain time,

whether it be breast-milk or any other ; I might perhaps say ninety-nine out of a hundred. Exceptions, I believe, there may be, but much fewer children would perish if no exception were to be made, than by absurdly rushing into the contrary extreme. But supposing a very strong child, at the end of the month, really not satisfied with milk only, and always craving the moment it has been thus fed, it, doubtless, may have a little boiled bread added to it, two or three times in the day ; but I should be very cautious how I extended it farther.* In the case, however, of an infant at the *breast*, if it be always craving as soon as it is taken from it, previous to allowing a more solid food, the quality of the nurse's milk, as well as the state of her health should be inquired into, and the milk be changed if its goodness be suspected. Perhaps where bread and milk is allowed, whether at a very early or a later period, it would be an advantage to boil a piece of roll, together with the upper crust, in a good

* “In Italy, Holland, Turkey, and through the whole Levant, children are rarely allowed any other food than the breast-milk, during the first year.” **BUFFON.**—In some extreme northern climates, we know they can have no other food, for a much longer time, and yet, there, the death of an infant is as rare an event as that of a suckling mother.

good deal of water, till it is very soft ; by which means the bread will part with some of its acescent quality : the water should then be strained off, and the bread mixed up with some milk, which ought to be boiled if the child is very young, or inclined to a purging.

It would, I perceive, lead me beyond all bounds to enter farther into this matter ; and I should not, indeed, have said so much on the subject, had I not had it much at heart to persuade those whose affections would ever lead them right, were their judgments not previously perverted.—I shall only add, that infants certainly ought not to be fed lying on their backs, but sitting upright ; as they will in this position swallow their food more easily, as well as more readily discover when they shall have had enough.

If Milk be the proper food for infants brought up by hand, the next inquiry will naturally be, what milk is the best ? and what is the fittest instrument for feeding with ? And herein it is with great pleasure I acknowledge my obligations to Dr. Hugh Smith, for his ingenious contrivance, set forth some years ago in his judicious treatise on the Management of Children, in a series of letters addressed to married women. The milk he likewise advises, is cow's milk in preference to all others ; and I wish to

refer the inquisitive reader to the reasons the Doctor has given, to which I can add nothing but my own experience of their validity. To the milk, either from the birth or a few weeks afterwards, (but I think in general the sooner the better) should be added a small quantity of a light jelly made from hartshorn shavings, boiled in water to the consistence that veal broth acquires when it has stood to be cold.* The design of the jelly is obvious, and rational, at once calculated to render the food more nutritive, as well as to correct, in some measure, the acescency of the milk ; this quality being thought to abound in the milk of different animals, in proportion to the quantity of vegetables on which they feed.† And the milk of quadrupeds, we know, is produced from vegetable juices only, whilst breast-milk is formed by a mixture of animal and vegetable food. A little Lisbon sugar may be

* There is sometimes a difficulty in making this jelly, on account of the hartshorn being bad ; those who shave it, often mixing with it the shavings of trotters, which may, however, be distinguished by their brittleness. If the shavings are good, two ounces of them boiled very slowly in a quart of water to a pint, will make the jelly of a proper consistence.

† See Dr. Young, *De Natura et Usu Lactis, in diversis Animalibus.*

be added to this compound of jelly and milk, if the child be not inclined to a purging, or in that case a little loaf sugar ; but the less of either the better. It will be proper to have the milk and jelly warmed separately, and no more at a time than may be wanted ; when it should be put into the small pot Dr. Smith has contrived for the purpose, which must be very carefully cleansed and scaled, at least once every day, and the spout be thoroughly rinsed, lest any sour curds should stick about it ; and to this end, it may be convenient to be provided with two.* At first the milk ought to be boiled, to render it less opening, but when the child is several months old, or may chance to be costive, the milk need only be warmed. If it be fresh from the cow, and very rich, a portion of water may be added to it, whilst the infant is very young.

The boat, the spoon, and the horn, are in no wise comparable to the pot ; which is so

* The objection to this mode of feeding, made by a late writer at Dover, that the pot may often be left foul, and therefore the food become sour, appears to me to be very far fetched : since if nurses are not to be depended upon in matters of cleanliness, and the sweetness of the food they are to administer, we can trust them in nothing, and infants must be continually suffering ; there being a hundred particulars essential to children's health, in which servants cannot be always superintended, but must be intirely confided in.

so contrived, not only as to please the child by its resemblance to the nipple, and the milk coming slowly into its mouth, but also to afford the infant some little degree of labour, in order to acquire the quantity it needs, (which the horn does not); by which means the food is also duly mixed with *saliva*. The like little fatigue takes place in children nourished at the breast, and by this mean it is, that infants, especially when very young, are not so apt to over-suck, as they are to be overfed by the boat or the spoon, the food of which being sweet and pleasant, and requiring only the trouble, or rather the pleasure of swallowing, the child is tempted to take too much at a time; whilst the nurse often forces down a second or third boat full, in order to put a stop to the cries, which indigestion from the first or second may have occasioned.

The writer just now alluded to, as well as Mr. LeFebure de Villebrune, detracts from the advantages of this mode of feeding, by observing, that infants may be fed as slowly and cautiously by the spoon: but the fact is, that a servant *will* not so feed them, whilst there are so many temptations to the contrary, (at least I have never met with such an one), nor will children, indeed, oftentimes suffer it, if they can anywise prevent it, but will be screaming all the while, instead of being kept quiet by their

their food; though the hope of quieting them, it has been observed, is frequently the nurse's sole motive for giving it. But when an infant *can* get it only slowly from the pot, and yet is itself all the while employed in the business, it will be agreeably diverted while it is acquiring its nourishment, in the same manner that it is amused at the breast.

The pot is formed in the shape of an Argyle, or gravy-pot, with a long spout, rising from the bottom, and pierced only with a few small holes at the end, which is to be covered with a piece of vellum, or parchment; which being left loose a little way over the spout, is soft and pleasant to the infant's mouth, and it has been said, is nearly as acceptable to many children as the breast, as I have often been a witness.

This manner of feeding is not only pleasant to the child but very convenient to the nurse, and the food equally at hand in the night as the day, being easily kept warm by a lamp, or even in the bed. The only objection I have ever known made to it by those who have made trial of it, is that which I esteem one of its highest recommendations, which is, that children thus fed are frequently hungry, that is, they are what nature designed them to be; this food fitting light on the stomach, and being easily digested, like the

the breast milk, children often need a supply of it.

It is a common direction in works of this kind, to point out the properst times for feeding an infant brought up by hand, and to direct how often it may safely be fed. I shall just observe therefore, that no adequate rules can be laid down on the occasion, and on that account none ought to be attempted, since none can be sufficiently comprehensive; and I am happy in not being at all at a loss in this instance, wherein writers have differed so widely. For infants not usually taking too much at a time in this manner of feeding, on account of the little fatigue which, it was observed, they undergo in acquiring their nourishment, may generally be permitted to partake of it as often as they might of the breast.* This is, however, by no means the case, when children are allowed to eat thick victuals, and are fed by the spoon, by which, it has been said, they are always in danger of taking too much; an evil that cannot be too often pointed out.

I shall only mention one popular objection to the plan here recommended. This is taken from the many fine children we meet with, who have been brought up by hand

from

* Optimum vero medicamentum est, opportunc cibus datus. Celsus. De Med.

from the birth, and fed with thick bread victuals all the day long, whilst we every now and then see some of those who have been debarred that sort of diet, weak and tender till they become a year or two old. Not to stop here to observe, that this objection militates equally against children living on the breast, though that is the food nature has designed for them, it will be sufficient to say, that it is only strong children who may be bred up almost any how, that can at all digest thick victuals, and that weakly infants, who are scarcely preserved by the most careful attention to their food, would soon be hurried out of the world if that were withheld. And this reminds me of an observation of a very judicious friend in the north of England, which greatly surprized me at the time, as I had never met with any observation from him before, the propriety of which was not exceedingly obvious and convincing. Upon seeing a number of fine children one day in London, he with some shrewdness observed, that we did not seem to have so many weakly half-starved children as he met with in the country, and that he had often before made the like observation in his journies to town. It appeared to me that my friend must lie under some mistake, and I accordingly mentioned my surprize at such a remark coming from him ; when he removed my astonishment by

by insisting on the fact, with the following obvious solution of it. There are, says he, scarcely any but fine and strong children in London, I apprehend, that live to be two or three years old, the weaker ones, for want of good air, and exercise, sinking under their infirmities ; whilst the tenderest children in the country by being turned out to crawl in the wholesome open air, or by sitting at the door almost all the day, escape the fatality of your gross air and warm nurseries, and survive the trying periods of infancy, though some of them remain weak and rickety till they become old enough to endure severe exercise, which is alone able to strengthen them effectually.

I have no doubt of there being certain exceptions to this mode of feeding, although very few have actually come to my knowledge, and though I am persuaded, that as a *general* plan, it is both a natural and salutary one. Instances may be met with, however, of some very athletic children who may require a more nourishing, and perhaps somewhat more solid diet ; and the state of bowels in others, will call for a greater variety of food, and of a kind not calculated to be administered in the mode here recommended, as hath been already noticed under the head of *purging*. On these accounts, I would offer another observation or two, in regard to thick victuals ; and

first, that in families accustomed to bring up their children by the spoon, I think I have found a greater number of infants well nourished by the *french* roll boiled in water to a jelly, and afterwards diluted with milk, than on any other kind of pap. From such families I have likewise learned, that some *change* in the food is, however, frequently necessary, and will be indicated by the degree of relish which the infant may discover towards different kinds of food, as well as by their effects on the bowels; though the child be not supposed to be at such times really unwell. Such changes principally respect the *different kinds* of bread, or other farinaceous substance usually mixed with milk, and sometimes the substitution of broth, for a few days, in the place of the latter.

When children brought up by hand become four or five months old, especially if strong and healthy, they may, doubtless, be allowed a thicker kind of victuals, because their digestive powers being by this time become stronger, they are able to extract good nourishment from it; though this change is not equally necessary for children brought up at the breast, at least, such do not require it so early; breast milk being more nourishing than any other. The first addition of this kind however, whenever it becomes necessary, I am persuaded,

ought to be broth*, which with a little bread beat up in it in the form of panada, will be at once an agreeable and wholesome change, and prepare them for farther advances in this way. But as this cannot well be given oftener than once or twice a day, a little bread and milk may also be allowed them every morning and evening, as their strength and circumstances may require. A crust of bread likewise, as soon as the child has a couple of teeth, will amuse and nourish it, whilst it will assist the cutting of the rest, as well as carry down a quantity of the saliva; a secretion too precious to be lost, when the digestive powers are to be farther employed. As the child grows older, to broth may be added light puddings, made of bread, semolina, tapioca, † or rice; falep boiled in milk, and such like. But to feed a child with veal,
chicken,

* “ I cannot help remarking here, that the gravy of beef or mutton, not over roasted, and without fat, properly diluted with water, is the wholesomest and most natural, as well as nourishing broth that can be made.” See the above-mentioned Letters of Dr. Hugh Smith.

† The best tapioca, I believe, comes from the French West-India Islands, and is called by the general term, *farine*. It is in very common use also in our West-India Islands, where it is made into thin cakes, and is called *cassada*; in this form, therefore, it is most likely to be genuine, and may be preserved for a very long time.

chicken, or other animal food, before nature hath given it teeth enough to chew it, howsoever small it may be minced in the kitchen, is altogether unnatural, * and can prove nourishing only to such children, as from the great strength of their natural constitution, need least of all the assistance of art. It is by degrees only, that children ought to be brought to such food, which at a certain period, indeed, is as necessary as a light diet at an earlier age. It is true, the error of some parents runs the contrary way, and their children are kept too long upon a fluid, or too slender diet, whence their bellies and joints become enlarged, and the bones of the lower extremities too weak to support them, at an age when they want more exercise than their nurses can give them. And when they can go alone, not only is a little light meat and certain vegetables to be allowed them once a day, with puddings, or blamange, white-pot, custards, and such like kitchen preparations of milk, † but even a little red wine is beneficial to many constitutions. This will not only promote

I i z digestion,

* *Ante dentium eruptionem non convenient cibi solidiores. Ideo natura quæ nihil frustra facit, & non deficit in necessariis, dentes ipsis denegavit, sed lac concessit, quod masticatione non eget.*
Primeros.

† “Infancy and childhood demand thin, copious nourishing aliment.” Arbuthnot, *On Aliments.*

digestion, and obviate in a great measure a disposition to worms, but by strengthening the habit, will also render children less liable to become rickety, at the very period they are very much disposed to it. But so many little infants, on the other hand, fall a sacrifice to the use of indigestible food under the age of six months, being carried off by vomiting, purging, or fits, that whoever would preserve them over the most dangerous period of infancy, cannot too cautiously attend to their diet at this time.*

Before

* From a note in Dr. Smith's letters it appears, that the average of births annually, within the bills of mortality, for ten successive years, was 16,283; out of which were buried under five years of age 10,145, and from amongst these 7,987 were under two years. So that almost two thirds of the children born in London and its environs, become lost to society, and more than three-fourths of these die under two years of age. This proves how hazardous a period that of infancy is in this country; and I am sorry there is so much reason to be persuaded, that the want of air, exercise, and a proper diet, has added, unnecessarily, to its dangers; there being no such mortality in barbarous nations, whose inhabitants live in a state of nature, or in any part of the known world, amongst other young animals. Although these, and other calculations I have seen, should be found ever so accurate, it is a pleasant reflection, (to whatsoever the circumstance may be owing) that since the time they were taken, the proportion of deaths at the early period above alluded to, has been very considerably decreasing; and the writer has noticed that for the last three years

Before I close this head of the management of children, perhaps the most important of all, I shall point out the most suitable diet under the different complaints to which they are most liable. And after the hints that have been thrown out through the former part of this work, I need only observe, for the sake of those who are unacquainted with diseases, that as light a diet as is possible is usually called for when a child is unwell, let the disorder be almost whatever it may. If a fever should accompany it, the child will require still less food than in any other complaint, but plenty of drinks; which may also be so calculated as to furnish nearly as much nourishment as the infant will require, and may in summer-time be given cold. Such are barley-water, water in which a crust of bread has been boiled, or if a purging attends, rice-water, and a drink made of hartshorn shavings, with a little baked flour in it. In this complaint, wherein more nourishment is required to support the child under it, baked flour mixed up with boiled milk, (as mentioned under the article of purging) is admirably calculated both as a proper diet and medicine; and if kept in a dry place, may be preserved fit for use for a

l i 3 considerable

years the average of deaths according to these bills has not been more than six in sixteen.

378 must be adapted to their complaints.

considerable time. For the like complaint, the food directed by Dr. Smith is very well adapted, and will afford a little variety. He orders a table-spoonful of ground rice to be boiled with a little cinnamon, in half a pint of water, till the water is nearly consumed; a pint of milk is then to be added to it, and the whole to simmer for five minutes: it is afterwards to be strained through a lawn sieve, and made palatable with a little sugar. In this way, or joined with baked flour, as mentioned above, milk may generally be made to agree perfectly well even when the bowels are purged; and when it does so, proves exceedingly nourishing. Should it chance to disagree, owing to an acidity in the first passages, good beef-broth ought to be made trial of, which may be thickened with baked flour, instead of bread, and makes a very pleasant, as well as antacidscent diet.

Perhaps much more has been said on the subject of acidity, by some writers, than really ought to have been, or it may at least be suspected, that a proper attention has not been paid to the peculiar circumstances of infants, who are all much disposed to it. Acidity is probably rather an effect, than the first cause of the disorders of infants; though there is no doubt, that their complaints are afterwards aggravated by an abounding acid; or rather, probably, from this

this natural acid becoming morbidly acrid, through its being accidentally confined in the first-passages. Nature, however, designed the food of infants to be acescent, and till the body be disordered, and digestion hurt from one cause or other,* this quality of their food is not likely to be very injurious to them. It is true, indeed, that as any similar complaints in adults, who feed on different diets, will, *cæteris paribus*, have their varieties, and each have some relation to the different qualities of their food; so it is not to be wondered at, that the complaints of infants should be attended with wind and other marks of acidity, which in adults are the least hurtful of all; and are, indeed, pretty easily corrected in children. When they are much troubled with wind, therefore, it cannot be wrong to mix some carminative seeds, or the waters distilled from them, now and then, with their food,† such as sweet fennel, or cardamon seeds, bruised

* Such cause, it has been observed, is very generally an over quantity of food, or heavy and indigestible diet; which, indeed, prove a more frequent occasion of acidity, than any thing else.

† Though such an occasional addition to their food is often exceedingly useful, I cannot help speaking against its being made a constant practice, by which children not only suffer when by accident, or absence from home, it has been neglected, but it destroys the very design with which it was used, by the stomach becoming accustomed to it.

bruised very fine ; but dill-water is that I have usually recommended, and being a liquid, is always ready to be added to the food, without loss of time.

Children, however, become less subject to wind and hurtful acidities as they grow older, and the stomach gets stronger, as it is called. But should these complaints, notwithstanding, continue obstinate, a little fine powder of camomile flowers, mixed in water, and warmed with a little ginger, will prove exceedingly bracing to the stomach and bowels, and render them less disposed to acidity. Exercise also, according to the age and strength, is a grand preservative and remedy, and especially making infants break wind after sucking or feeding. And this may generally be effected, as every nurse knows, by raising the infant up, and gently tapping it on the back, or rubbing its stomach, before it be lain down in the cradle to sleep.

I shall only add farther, that when milk is frequently thrown up curdled, a little prepared oyster-shell powder may be added to it, or a very small quantity of almond-soap, or of common salt,* which will not at all injure

* It is a very great mistake, though a common one, to imagine that salt will dispose to the scurvy. This mistake is founded upon the bad effects of the long use of salted meats ; but salt taken with fresh meats

jure the flavor, and will prevent this change happening too soon in the stomach.

I shall now close this head, with some observations relating to wet-nurses and to weaning.

The first and essential point in a wet-nurse is doubtless, that her milk be good, to which end it is necessary she be healthy and young, her bowels rather costive than otherwise ; and not of weak nerves, nor disposed to menstruate whilst she gives suck. The chief marks of good milk, are, its being thin, of a bluish colour, rather sweet, and in great quantity ; and if under six months old, it is, doubtless, an advantage. Her nipple ought to be small, but not short, and the breast round and prominent. She ought to have good teeth, at least, her gums should be sound, and of a florid colour. She must be perfectly sober, and rather averse from strong liquors ; which young and healthy people seldom need in order to their having plenty of milk. She should be cleanly in her person, good-tempered, careful, fond of children, and watchful in the night, or at least, not liable to suffer

meats is quite a different thing. And I shall just remark, that salt and water is one of the best lotions for the mouth, and preservative from the tooth-ach, and also makes an excellent wash for the face ; which will remove some kind of pimples without any risk of injury to the constitution.

fer in her health from being robbed of her sleep. And I cannot help adding here, that she ought not to be disposed to prescribe medicines ; otherwise something improper can scarcely fail at one time or other to be administered, and perhaps to the no small injury of the child.

Previous to the observations I have to offer on the head of weaning infants, it may not be amiss to drop a few words on the proper diet for wet-nurses. And here, an invariable attention should be paid to natural constitution and habit. Due allowance being made for these, it may be said, that milk, broth, and white soups, plain puddings, flesh meats of easy digestion, and a due mixture of vegetables, with plenty of diluting drinks, and such proportion of more generous liquors, (spirits excepted) as the variety of circumstances shall direct, will be a proper diet for suckling women. Respecting vegetables particularly, the strictest regard should be had to constitution and habit. Wherever vegetables, or even acids, uniformly agree with the sucking parent or nurse, I believe a healthy child will never suffer by their partaking of them, but on the contrary, the milk being thereby rendered thin and cooling, will prove more nourishing and salutary, in consequence of being easier of digestion.

The proper age for weaning a child is to be gathered from the particular circumstances

ces attending it. The child ought to be in good health, especially in regard to its bowels, and doubtless, ought first to have cut, at least four of its teeth. This seldom takes place till it is about a twelve-month old ; and it may be observed, that healthy women who suckle their own children, and take proper exercise, do not usually become pregnant again in less time. We shall not be very wide of the matter, therefore, if we say that children in general ought not to be weaned much earlier than this ; making proper allowances, however, for all just exceptions to general rules.*

Any preparation for weaning is generally needless, and especially that of feeding children before-hand, though made a common excuse for stuffing them whilst at the breast, with indigestible food. I have seen many mothers needlessly torturing themselves with the fear of their children being weaned with difficulty, because they could not get them to feed when eight or ten months old, and still at the breast ; but I have always found such children wean, and feed just as well as others, when once taken wholly from it. I, therefore, never have any fear in that respect, and should be happy

* Astruc advises children to be suckled till they are two years old ; but, I think, without giving any sufficient reasons.

py if any thing I can say from experience, may be the means of lessening the trouble of parents on this occasion, as well as counteracting, if possible, a sentiment encouraged by several writers, which has, I believe, no real foundation in fact, but has too often been productive both of much inconvenience and mischief. But I do not by this intend to say, that a child of eight or ten months old would be injured, or often-times not benefited, by a little food once a day of a more solid nature than the breast-milk, as indeed I have intimated before ; but when children happen to be weaned much earlier, and are fed almost from the birth merely with that view, (which is often the case) they may be essentially injured by it.

When the weaning is once entered upon, a great part of their food ought still to be of milk, with puddings, broths, and but little meat ; and they should never be fed, or even suffered to drink in the night, from the first ; supposing them to be weaned at a proper age. The mere giving them drink, even only a few nights, creates the pain and trouble of two weanings instead of one, and if it be continued much longer, it not only breaks the rest, but the child will acquire a habit of being fond of drinking ; the consequence of which very often is a large belly, weak bowels, general debility, lax joints, and all the symptoms of rickets. The

child need only to be fed the last thing before the nurse goes to bed, which may be generally done without waking it; and whilst the child seems to enjoy this sleepy meal, it becomes a most pleasant employment to the nurse, and much more to a mother, from observing how greedily the child takes its food, and how satisfied it will lie for many hours on the strength of this meal;—the mention of which naturally leads me to consider the next article proposed, viz.

SLEEP and WATCHING.

AFTER what has been already advanced on this article, under the head of their complaints, it will be necessary only to observe, that healthy children sleep a great deal for the first three or four days after they are born, probably from having been previously accustomed to it. They ought not, however, to be suffered to continue this habit in the day time, but should be gradually broken of it, and indeed if not indulged, they will not be so much disposed to sleep as is generally imagined, and will therefore take more rest in the night, which is mutually beneficial to the child and the mother; who, especially if she suckles, will be the less disturbed, at a time when she herself particularly requires this refreshment.

Therefore, when infants are sleepless in the night, they should be kept more awake,

and have as much exercise as possible in the day time, which though they be ever so young may be pretty considerable, (as will be directed more at large in its place,) by playing with them, or dandling on the knee, and otherwise amusing them ; and when older by every kind of exercise they can bear. The child, if healthy, will soon contract a habit of being very much awake while it is light, through that lively and restless spirit peculiar to infancy, and by this means, another evil will be much avoided, that of often laying a child down to sleep in the day time, for hours together, loaded with a thick dress, and covered besides with heavy clothes in a soft bed, or the cradle.

But though I am confident these cautions will have their use, I am equally satisfied that many children have much less sleep than they require, as I shall have occasion presently to notice ; but then this deficiency is chiefly in the night, and is often the consequence of some complaints which the child labours under. Upon these, however, sufficient has already been said in the former part of this work, to which therefore the reader is referred.

Before I quit this article, it may be remarked, that the custom of constantly placing infants on their backs, whether in the cradle or bed, is very improper : for by this

this means, the superfluous humour secreted in the mouth, which, in the time of teething especially, is very considerable, cannot be freely discharged, and must fall down into the stomach, where its abundance occasions various disorders. Infants should therefore be frequently laid on their sides, particularly the right, as favourable to the stomach getting easily rid of its contents; to which side also children, when strong enough, will instinctively turn, if not prevented by the weight or confinement of their own clothes, or those of the cradle or bed. The chief apology, for all which, is a fear of the infant's falling, or turning on its face; but this is rather an apology for the neglect of that necessary attention to children, which whenever, it can be commanded should never be spared them.

It only remains, under this article, to say something of the Cradle, which most writers have spoken against. I believe, there is no doubt but the custom of laying children down awake, and rocking them in a cradle in the day time, or at seven or eight o'clock in the evening, when they are to go into their night's sleep, as it is called, may be an occasion of making them more wakeful in the night, or at least may cause them to expect that kind of motion whenever they awake. But yet I cannot help thinking, there is something so

truly natural, as well as pleasant, in the wavy motion of a cradle, (when made use of at proper times) and so like that children have been used to before they are born, being then suspended and accustomed to ride, as it were, or be gently swung in a soft fluid, upon every motion of the mother, and even during her sleep, from the effects of respiration ; that always wishing to follow nature as I do, I cannot, on the whole, but give an opinion rather in favour of the cradle.* It is, at least, among the little things in which we may harmlessly err, and in which every mother may therefore be safely guided by her own opinion, or even by her feelings. And if the child in consequence of being sometimes rocked to sleep in the day time, shall expect it when it awakes in the night, it will not be very difficult to find a substitute for it ; and indeed parents seem, as it were by instinct, to pat and gently move a child, whether lying on the lap or the arm, whenever it appears to awake prematurely.—I shall only add on this head, what cannot be too often urged, that however wakeful a child may be in the night, it cannot receive a greater unkindness than from the exhibition of Godfrey's cordial,

syrup

* the objections made by some late writers to this sentiment militate only against the abuse of it, from any violent rocking ; as though infants must necessarily be jumbled in a cradle like travellers in a mail-coach.

syrup of poppies, or any other opiate, and given as they usually are, to procure sleep, not because it is necessary, or proper for the child, but because it is convenient to the nurse. It were, therefore, a good rule in a nursery, to forbid administering *any* kind of medicine without particular permission. And in regard to watchfulness, as was observed in another place, it is usually a mere symptom, and should be treated according to its cause ; but in a general way it may be said, that nothing can so safely and effectually contribute to procure natural rest as that exercise to be farther considered under the next head..

MOTION and REST.

IT is only the former of these that will claim much of our attention, as infants ought scarcely ever to be in a quiescent posture, but when they are asleep ; and happy for them, that active principle with which nature hath endowed them, is so vigorous and overflowing, that they will hardly submit to it. Exercise, like air, is indeed of so much importance to children, that they cannot possibly be truly healthy without it ; care only should be taken that it be properly suited to their age.

The first kind of exercise, it has been said, consists in dandling, as it is called, patting the back after feeding, and gently

390 *Exercise is of the greatest importance :*
raising the child up and down in the arms ;
taking care at first not to toss it very high,
infants being very early susceptible of fear,
and even capable of being thrown into fits
by it. Another exercise adapted to this
tender age, and of the utmost advantage,
is rubbing them with the hand. This should
be done *all over*, at least twice a day, when
they are dressed and undressed, and ought
to be continued for some time, being pecu-
liarly agreeable to the child, as it constant-
ly testifies by stretching out its little limbs,
and pushing them against the hand, with a
smile expressive of the satisfaction it receives
from it. Such gentle exercise may be par-
tially repeated every time the child's cloths
are changed, by rubbing the lower limbs,
and every other part within reach.

When children are older, their exercise
should be proportionally increased, and as has
been observed, they ought never to be car-
ried in a quiescent posture, but the arm that
supports them should be continually in such
motion as the nurse is able to continue. For
children, it has been noticed, delight to be
in constant motion ; and this exuberant ac-
tivity is given them for the wisest purposes,
and ought by no means to be counteracted.
And I notice the mode of carrying them,
because I have seen children flung carelessly
over the arm in such a manner, as neither
affords a child any exercise, nor allows it to
give any motion to itself ; which a lively
child

child will always endeavour to do. And, indeed, the manner of carrying an infant, is of more importance than is generally imagined, for from it, the child will contract a habit, good or bad, that it will not readily give up, and may be as much disposed to become rickety by improper management in the arms, as if it were lying wet in the cradle; the ill effects of which have been pointed out already.

Much as there has been said on this article, I cannot suffer it to be closed without dropping a hint or two with a peculiar reference to *females*; upon whom beside every infirmity common to the other sex, is imposed the painful task of child-bearing. It is the benefit of the lower class of people, indeed, that I have here principally in view; though the caution is not utterly unnecessary elsewhere.—The many distressing, and sometimes fatal labours I have been witness to, have led me to regard with a kind of horror a rickety, distorted female infant, whose parents or nurse's neglect, or ignorance, is heaping up for it additional sufferings and dangers, to those which are great enough under every advantage that art, and good-health contribute.

From the age of two years therefore, or rather earlier, this care is especially called for, and beside every caution already pointed out, lays a strict prohibition on girls being suffered to *sit*, for hours together, on a low

low seat, whereby that assemblage of bones, called the *pelvis*, or basin, is pressed between the lower extremities and the inferior part of the back bone, and is made to grow out of its natural form. The consequences of this change of figure, if it be any wise considerable, cannot fail to be productive of increased pain and dangers in parturition, frequently equally fatal both to the parent and her offspring.

I am aware, that many poor people are not in a situation to give their children all the exercise they require; they may, however, suffer them to afford as much as possible to themselves, by allowing them to *crawl* about on the floor, near an open window or door, instead of compelling them to lie on their back, or to sit upright, pinned in a chair; the ill-consequences of which are so exceedingly evident.

It is hoped no apology may be thought necessary for these obvious remarks, since no pains should be thought too great if they may prevent the evils here pointed out, nor can too much be said to inculcate good nursing (and especially exercise) which is alone adequate thereto.*

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* A proper attention to these articles has been conceived to be of so much importance, that the benevolent Governors of the British Lying in hospital, have lately given orders, that some brief Directions on these heads should be drawn up, and given to every mother, on her leaving that Charity.

It may be a proper inquiry in this place, at what age children should be put on their feet, a point on which people have differed considerably; but I apprehend nothing more is required than to follow nature, whose progress is always gradual, as our imitation of her should be, and we shall then seldom run very wide of her intention. If we take notice of a healthy child, it is, as has been said, always in motion, and as soon as it gets strength, it will support itself by the help of its hands and feet, and will crawl about wherever it is permitted. From this exercise, it will soon acquire an increase of strength, and whenever it is upheld by the arms, and disentangled from the weight of its clothes at the time of dressing and undressing, it will naturally walk up the waist of its mother, or nurse,* and by its minister

* I cannot help taking notice here of an imprudence on this occasion, which it is well if it has not been prejudicial oftener than has been suspected; I mean, that of suffering a child to crawl so high up the neck, as renders the mother, or nurse, incapable of raising the arms high enough to support it. For not only may a child be suffered to slip out of the hands, but the mother may be injured. I have felt much on this occasion, from seeing tender and delicate ladies with their arms on a stretch, suffering a heavy child, perhaps with its shoes on, to crawl over the breasts, distended with milk, and squeezing them so forcibly against the edge of the stays, that they have sometimes cried out from the pain, and yet not been able, at

ner of moving its limbs, and its bearing more or less on the arms, will shew what advances it has made. Whenever it is strong enough, however, it will have attained sufficient knowledge to walk by itself, and will never attempt it till it is fully equal to the task. It will then be perfectly safe to permit it to follow its inclination, at least as far as the straitness of its limbs is concerned ; and I think I may defy any one to produce a single instance of a child getting crooked legs, from being suffered to walk as soon as it has been disposed to make the attempt. The mischief is, we lead on children prematurely to the trial, by leading-strings, goe-carts, and other contrivances, calculated only to spare idle nurses,* or what is really pitiable,

at the moment, to bring the infant down into the lap.

* I cannot avoid once more risking giving offence, that I may do every thing in my power to induce parents to give the utmost attention in regard to exercise, for the want of which I have with much concern beheld some children of people of large fortune turn out as rickety as those of the labouring poor. In some instances, I have been so satisfied this has been owing merely to a want of exercise, that I have informed ladies, that from the appearance and manner of the nursery-maid, I was certain their children were not exercised sufficiently; and have pointed out the bad consequences that must ensue. And where the advice has not been taken, I have as constantly been consulted some months afterwards, about the

ble, to allow poor people time to attend to other concerns, who are obliged to work for their bread. But where this is not the case, such contrivances are unpardonable, and are the consequence of ignorance, or idleness, which are productive of great evils ; and then by way of excuse it is asked, at what age a child may be put on its feet—A question, I apprehend, that ought to be answered only in the manner I have done—* Leave children to themselves, and they will afford a satisfactory answer in time.

It is said, however, by a sensible writer†, that children's legs do not become crooked by putting them too early on their feet, and asks if any other animal has crooked legs, though they stand on them almost as soon as they are born. But the cases, I apprehend, are widely different ; quadrupeds and fowls are designed by nature to be early

the cold-bath, for children a year and half, or two years old, who have only been able to waddle across the room, with their knees knocking together, and reeling at every step, so as not to be trusted alone.

* I have seen a child walking alone before it has been nine months old, and ten months, carrying a heavy play thing in his hands ; whilst other children, rendered weak and rickety by mismanagement, have been unable to go alone at two years of age.

† Dr. Hugh Smith's Letters to married women.

ly on their legs, and it is necessary they should be so. They are accordingly calculated for it, their bones being strongly ossified from the birth ; but this is, by no means, the case with the human species, and therefore no argument can be founded upon it without considerable latitude, and making such allowances for the different circumstances of children as have been pointed out. But if it is meant only to suffer children *to feel their way*, if I may so speak, for themselves, they will never deceive us, nor do I think their limbs ever become crooked, but by urging them to it by contrivances of our own, for which poverty is the only apology that can possibly be offered.

A Note of Dr. Buchan on the subject of giving exercise to children, which some people from their poverty cannot spare time to afford them, charmed me exceedingly. The good sense and philanthropy manifested in it, as well as a desire of extending its useful contents, will I hope be apology sufficient for transcribing it, especially as it is at present so apposite to my purpose. And though I cannot flatter myself that government, however benevolently disposed, will, or perhaps can, at this time, adopt such a plan, either from his recommendation or mine, it is, nevertheless, in the power of people of large fortunes, both in town and country, to give it very considerable influence,

ence, especially if the premium were made double for such children as should be produced in good health. The Doctor's words are,

" If it were made the interest of the poor to keep their children alive, we should lose very few of them. A small premium given every year to each poor family, for every child they have alive at the year's end, would save more infants lives than if the whole revenue of the crown were expended on hospitals for that purpose. This would make the poor esteem fertility a blessing, whereas many of them think it the greatest curse that can befall them ;" and I may add, I have known them express great thankfulness when their children were dead.

A very few words may suffice on the article of Rest, the irregularities therein being far less numerous and important than in the former. It will be sufficient to notice them in regard to the improper inducement of young children to continue in action after they feel themselves wearied, and in keeping them out of their beds beyond a proper hour. Children in health never wish to sit still when they do not actually feel it to be necessary, much less to go to bed unseasonably soon. But it is to be remembered, that young people require more sleep, and to be longer in a horizontal posture than adults ; for though they usually rise very early, they

get to rest more than proportionally soon, being disposed to fall asleep almost the moment they are still ; and this is natural to them, and is one demonstration of the advantage of exercise.

If I had not already far exceeded the bounds I had intended, I should be induced to say something on the Manner in which Exercise becomes so beneficial to children—I shall, however, just observe, that it tends to push forward the blood through the small vessels, and to unfold them in the manner nature has designed them to be extended, in order to promote the growth of the infant, whilst it preserves the blood in a proper state of fluidity, and promotes both the Secretions and excretions ; which are the next things it was proposed to consider.

RETENTION and EXCRETION.

EVERY medical reader will be sensible, how greatly health depends upon a due proportion between the daily supplies, and the various discharges of the body : the latter will vary according to the diet, age, and particular mode of life of each individual. The excretions of infants, however, insensible perspiration excepted, are chiefly from the bowels and bladder ; but the latter is not very liable to disorders. It will

will be sufficient therefore to say, that the retention of urine is chiefly soon after birth, and is usually removed by applying a bladder of hot water to the belly, and gentle rubbing with a little warm brandy, or an onion, and throwing up a clyster; or should these fail, the infant may be put up to the breast in a pan of warm water, and take a little marsh-mallow, or parsley-tea, sweetened with honey, with the addition of a few drops of the spirit of nitrous æther. This, if there be no mal-formation of parts, will generally produce the desired effect in the course of a few hours; though cases have occurred in which infants have voided no urine for the space of four days, and have suffered very little inconvenience. Some of the old writers have spoken also of incontinence of urine, arising from weakness of the sphincter of the bladder, but I have never met with it in the infant-state. They prescribe agrimony and myrrhe, and direct astringent fomentations of red wine to the belly, the *perinæum*, or seat, and the loins.

The present observations are therefore chiefly confined to the Bowels, which would call for a scrupulous attention in this place, if so many things relative to them had not been discussed in the former part of this treatise. It were needless, therefore, to say more, than to remind common readers, that infants are rarely healthy long together,

ther, who have not two or three stools every day ; or should they be more, for the first three months, if the child be brought up at the breast, and the nurse have a sufficiency of milk, it will generally thrive the better. The stools likewise ought to be loose, of a yellow colour, free from lumps, or curdly matter, and should come away without griping. On the other hand, if an infant is brought up by hand, the danger generally lies in the other extreme, such children being disposfed to be purged, and to have griping and four stools, from the acescent, and often indigestible nature of their food, especially if fed by the spoon ; and therefore require an early attention when their bowels are disposfed to be open, and their food to be changed, in the manner directed under the article of Purging.

THE PASSIONS *of the MIND.*

THIS is the last Article mentioned as included in the *N:n-naturals*, and on which I shall be very brief, it being the happiness of Infants to be very little affected by them. This article, can, therefore, relate to them merely in regard to their mode of expressing such passions, and principally in respect to Laughter and Crying. The former, if too long kept up, or too violent, may not only induce

induce the hiccough, but it is said, may even throw an infant into fits. The latter is, indeed, much oftener suspected of being mischievous, and chiefly by occasioning fits, or a rupture: the excess of both these affections should, therefore, be guarded against. Moderate, and not too frequent crying, however, ought not to be alarming; and, indeed, a variety of considerations induce me to believe, that this expression of the passions in Infants is not only much more harmless in itself than is generally imagined, but is also, in some respects salutary. The first Cries it makes we know to be so, and that children recover from the paroxysms of some complaints (as was mentioned in regard to the Croup) by an effort of this kind. It is evident likewise, how very much Health depends on a free circulation of the blood through the lungs, and on their free expansion from the dilatation of the *bronchial*, or air-vessels, that run through them.* But as infants are incapable of giving themselves any exercise, and indeed of receiving that kind which tends to promote such an effect, I have conceived Crying to be an effort which Nature may have wisely

* Fletus moderatus pueris non obest—peccus dilatat et calefacit. Primeros.

substituted in its stead.* Whatever is truly natural I always conceive to be right, though every thing is capable of being abused, and the most beneficial dictates of nature may be exceeded. I am satisfied, however, that the pacifying of children by improper means, and especially cramming them with food when they are not hungry, (against which so much has been said) occasions far greater evils in thousands of instances, than ever were produced by the efforts of Crying.— But the Nurse who can with calmness, hear an Infant cry, without attempting to pacify it, by every proper means, is a Monster in human shape, unfit to be trusted with the care of any animal being, much less with a tender, helpless creature, whose only language, by which it can express its wants or its sufferings, is its Tears.

It cannot help trespassing on the reader's time to make one apology more for having dwelt so long on this, as well as on several other heads; my motive has been the desire of instructing, though in some instances at the

* In support of this sentiment, which I conceived not to be a very common one, I quoted, in the former edition, the above authority of *Primeroe*. *Mr. Le Febure de Villebrune's* translation has since furnished me with a better and more ancient one.— *Aristot. Politic. Lib. vii. C. 17*, where the idea is supported more at large.

the risk of displeasing ; and for the sake of my fair readers, who may do me the honour of consulting this work, I have endeavoured to lessen their Fears, as far as they have appeared to be needless, wherever no other Remedy could be offered.

I shall conclude by observing, that, tho' the Passions of the Mind refer so little to Infants, they relate very materially to the Wet-nurse ; who besides endeavouring to keep her spirits as calm as possible, ought to be exceedingly careful not to put a child to her breast, when under the influence of any violent passion, of whatever kind it may be, the bad effects of which have already been instanced in the former part of this treatise. And I shall think myself well recompensed for the trouble I have had, if this, or other hints, may prove the means of lessening the dangers of the infant-state, and the consequent sad fatality that attends it ; as well as of abating the anxiety of the fond Mother, who after having brought her tender Charge into the world with Sorrow, is pierced with double Pangs at its leaving it.—An Event which, as Experience warrants me to say, may by Art and good Management, be often prevented, the author

thoc ardently hopes the fond Parent may have fewer occasions to lament, and her rising Sons being athletic.

THE END.

An Alphabetical List of Medicines recommended in this Work, to which the College of Physicians has given new Names.—Both the Latin and English Names are given, of which, that one will stand first which more frequently occurs in the Work.

NEW NAMES.

A.

ANTIMONIUM

tartaratum,

Tartarised Antimony.

Argentum nitratum,

Nitrated Silver.

Aromatic Confection,

Confectio Aromatica.

Aqua Cupri ammoniati,

Water of ammoniated

Copper.

Aqua Kali puri,

Water of pure Kali.

Aqua Ammoniae,

Water of Ammonia.

Aqua ammoniae acitatae,

Water of acetated Am-
monia, C.

Catechu,

Calx of Antimony,

Calx Antimonii.

Camphorated Spirit,

Spiritus camphoratus.

Compound water of ace-
tated Litharge,

Aqua Lithargyri acetati compusia.

Compound Tincture of
Gentian,

*Tinctura Gentianæ com-
posita.*

Compound Tincture of

Names formerly in Use.

Tartarum emeticum,

Emetic Tartar.

Causticum lunare,

Lunar Caustic.

Cordial Confection,

Confectio cardiaca.

Aqua Sapphirina,

Sapphire water.

Lixivium saponarium,

Soay-Ley.

Spirius Salis Ammoniaci,

Volatile Spirit of Salt am-
moniac.

Spiritus Mindereri,

Minderus's Spirit.

Terra Japonica.

Calcined Antimony,

Antimonium calcinatum.

Camphorated Sp. of wine,

Spiritus vinosus camphor.

Vegeto-mineral water.

Aqua vegetabilis mineralis.

Bitter Tincture,

Tinctura amara.

Elixir of Aloes.

Tinc-

<i>Tinctura Aloës composita.</i>	Elixir Aloës.
Compound Spirit of vitriolic Æther,	Hoffman's anodyne Liquor,
<i>Spiritus Ætheris vitriolici compositus.</i>	<i>Liquor anodynus mineralis.</i>
Compound Spirit of Ammonia,	Aromatic volatile Spirit,
<i>Spiritus Ammoniae compositus.</i>	<i>Spiritus volatilis aromat.</i>
<i>Hydrargyrus muriatus,</i> Muriated Quicksilver.	<i>Merc. corros. subl. alb.</i> White corrosive sublinate.
L.	
Labdanum-plaister,	Stomach-plaister,
<i>Emplastrum Ladani.</i>	<i>Emplastrum stomachicum.</i>
Litharge-plaister,	The common plaister, or Simple Diachylon,
<i>Emplastrum lithargyri.</i>	<i>Emplastrum commune.</i>
M.	
Muriatic Acid, <i>Acidum muriaticum.</i>	Spirit of Sea-salt, <i>Spiritus Salis marini.</i>
N.	
<i>Natron præparatum,</i> Prepared Natron.	<i>Sal Soda,</i> Salt of Soda.
O.	
Ointment of acetated Cerusse,	Ointment of Lead,
<i>Ung. Cerasœ acetatæ.</i>	<i>Unguentum Saturnium.</i>
P.	
Powder of Scammony with Calomel,	Basilic Powder,
<i>Pulvis è Scammonio cum Galomelane.</i>	<i>Pulvis Basilicus.</i>
S.	
<i>Sp. æthæris vitriolici,</i> Sp. of vitriolic Æther.	<i>Spiritus Vitrioli dulcis,</i> Sweet Spirit of Vitriol.
Spirit of nitrous Æther, <i>Spiritus ætheris Nitroſi.</i>	Sweet Spirit of Nitre, <i>Spiritus Nitri dulcis.</i>
T.	
Tartarised Natron, <i>Natron tartarifatum.</i>	Rochelle Salts, <i>Sal Rupellensis.</i>
<i>Tinctura Catechu,</i> Tincture of Catechu.	<i>Tinctura Terra Japonicæ,</i> Tincture of Japan-earth.
Tincture of Opium.	

U.

<i>Unguentum Calcis Hydrargyri albæ,</i>	<i>Unguentum è Mercurio præcipitato,</i>
Ointment of the white Calx of Quicksilver.	Ointment of white Precipitate.
<i>Unguentum Hydrargyri nitratis,</i>	<i>Unguentum citrinum,</i>
Ointment of Nitrated Quicksilver.	Citrine Ointment.

V.

Volatile Liquor of Hartshorn,	Spirits of Hatshorn,
<i>Liquor vol. cornu Cervi.</i>	<i>Spiritus volatilis cornu Cervi.</i>
W.	
Water of Kali, <i>Aqua Kali.</i>	Ley of Tartar, <i>Lixivium Tartari.</i>
Water of acetated Litharge, <i>Aqua Lithargyri acetati.</i>	Extract of Lead, <i>Extractum Saturni.</i>

Definition of Technical and other Terms, not fully explained in every passage where they may occur; with a view to render the work more familiar to some readers, when consulting particular or detached parts.

A.

A BDOMEN,	The Belly.
Anus,	The opening of the great gut, or lower bowel.

D.

Dentition,	Teething.
Diaphoretics,	Medicines promoting Perspiration.
Diarrhœa,	A Purging.
Drastic,	Rough or violent.
Duodenum,	One of the small Bowels.
Duramater,	A Membrane covering the Brain.

E.

Erysipelas,	Saint Anthony's fire.
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Gas-

G.

Gangrene,
Gastric juices,

A Mortification of any part.
Secretions in the stomach,
and from various glandular
parts contained within
the Belly.

I.

Icteric,

Appertaining to the Jaundice.

Intestines,
Intestinal,

The Bowels or Guts.
Belonging to the Bowels.

L.

Longitudinal Sinus,

A passage for the blood from
the fore-part of the head
to the hind-head.

M.

Medulla spinalis,

The Marrow of the back-
bone.

Mesentery,

The connecting Membrane
of the Bowels.

O.

Ossacrum,

The extreme part of the
back-bone.

P.

Palatum molle,

The back parts of the Mouth
and Throat.

Pancreas,

The Sweetbread, a large
gland.

Pathognomonic Symptoms

Symptoms denoting the Es-
sence of any disease.

Periosteum,

A Membrane covering the
bones, and uncut-teeth.

Pubes,

The space between the two
groins.

Pylorus,

The inferior opening of the
stomach

S.

Spine of the Tibia,

The edges of the shin-bones.

U.

Urethra,

The Passage from the Blad-
der.

Uvula,

The small pendulous por-
tion of flesh, at the back
of the mouth.

V.

Vertebræ,

The joints of the neck,
back, or loins.

Viscera,

Med Hist.

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